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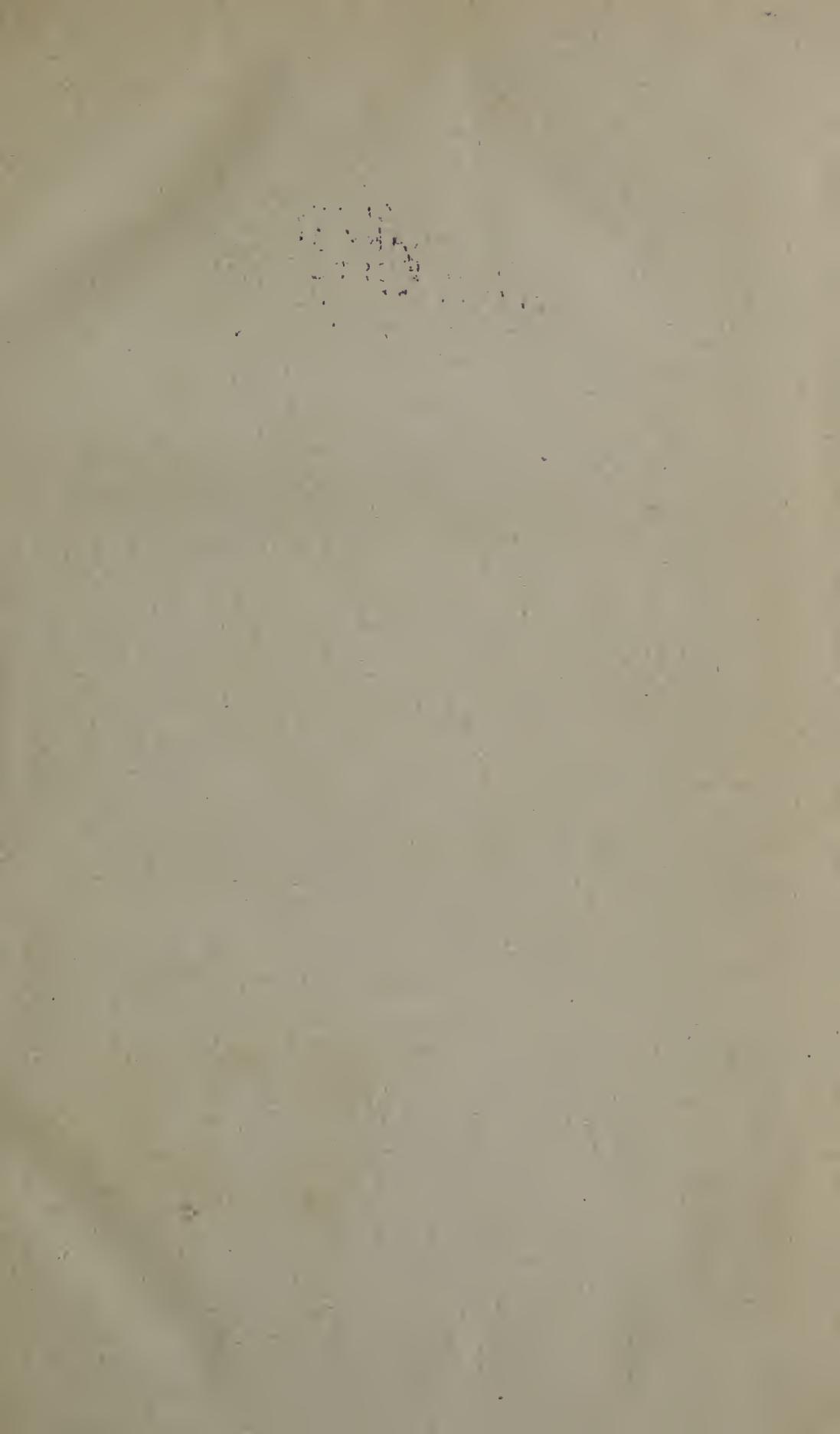
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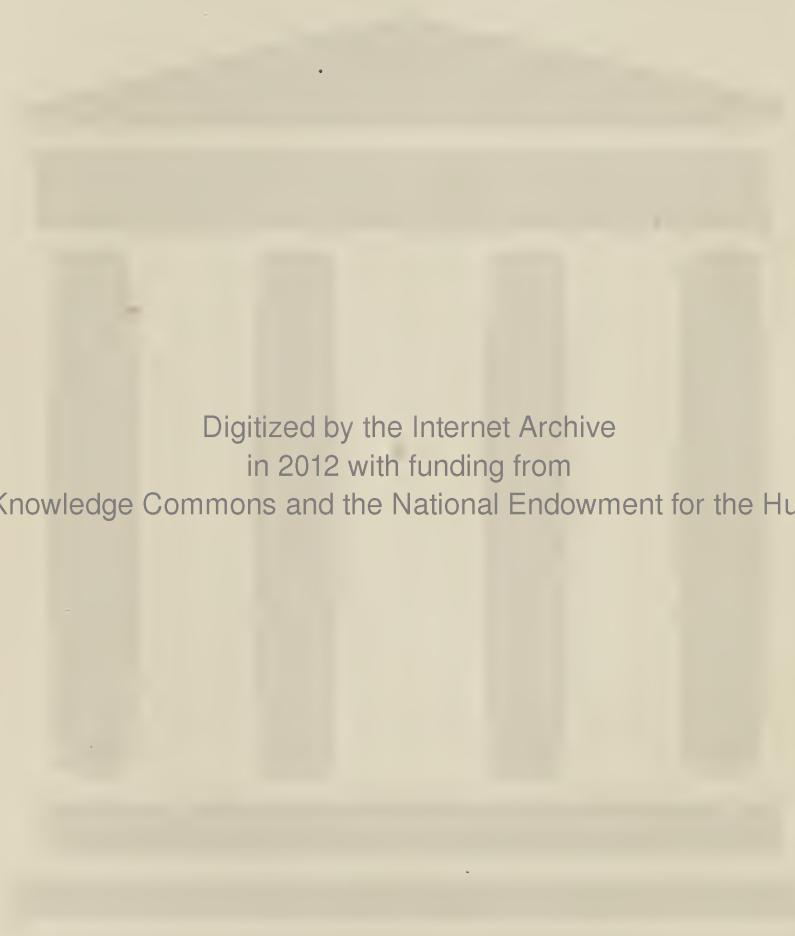
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THE
New-England Journal
OF
MEDICINE AND SURGERY,
AND
Collateral Branches of Science.

CONDUCTED BY
WALTER CHANNING, Jun. M.D.,
AND
JOHN WARE, M.D.

Vol. XV.

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Homo naturæ minister et interpres tantum facit et intelligit, quantum de naturæ
ordine, re vel mente, observaverit; nec amplius scit aut potest.
FRANCIS BACON.

THIRD SERIES, Vol. V.

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Walter Channing M.D.

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CONTENTS.

ORIGINAL COMMUNICATIONS.

Desultory outlines of Animal Life. By Elisha North, M.D.	1, 146
Some Account of the Measles as they appeared in Boston in the year 1825. By Geo. Hayward, M.D.	10
Difficult and Impracticable Labour,	113
Clinical Remarks, No. IV. By A. L. Pierson, M.D.	130
Influenza.—‘Catarrhous Epidemicus,’	135
Sketch of ‘The Italian New Medical Doctrine.’ By J. Greely Stevenson, M.D.	141
Bills of Mortality. By Walter Channing, Jr. M.D.	225
Case of Pseudo-Tetanus. By Dr Milo L. North,	234
On Blisters. By Walter Channing, Jr. M.D.	235
The proper Influence of the Pulse, in its Application to the Diagnosis and Prognosis of Diseases. By Milo L. North, M.D.	337
Case of Organic Disease of the Brain. By John Jeffries, M.D.	351
Case of Epilepsy. By Usher Parsons, M.D.	355
Miscellaneous Cases. By Walter Channing, Jr. M.D.	357
Remarks upon the Characteristic Effects of the Variations of Atmospheric Pressure upon the Human System. By David B. Slack, M.D.	371

MISCELLANEOUS NOTICES.

Oil in the Serum of Human Blood, in an Extract from a Letter of Thomas S. Traill, M.D. of Liverpool,	14
Case of Universal Anchylosis, by Giovanni Battista Grabner Maraschiu,	15
Singular Case of Ascites,	16
Cases of Lingering Labour, &c. treated by the Secale Cornutum.—Natural Births, &c.	17
On the Closure of the Pupil in Iritis,	19
On the Croton Oil,	20
Larvæ of Insects in the Human Stomach.—Case with Remarks,	21
Hospital Reports, from l’Hotel Dieu,	22
Perforations of the Soft Palate,	22
Idiotism of many Years Continuance, cured by the Extirpation of the Clitoris,	24
The Copenhagen Needle Patient,	27
Sulphate of Quinine,	30
Physiological Anomaly,	31
Case of Poisoning by Laudanum. By John Ware, M.D.	147
A Case of temporary Loss of Power over the Muscular System,	154
Account of the Present State of Medicine in Italy. By Fr. W. Oppenheim, M.D.	160, 245
Non-mercurial Treatment of Syphilis,	172
Vaccination,	243
Croton Oil Soap,	244
Hereditary Tendency to Hæmorrhagy,	252
Singular Case of Disease of the Fifth Pair of Nerves,	256
Treatment of Tænia by Croton Oil,	257
Treatment of Poisoned Wounds by the Application of Cupping-glasses,	258
Dr Morris’s Case of Stone in the Bladder, with a new Method of relieving the Sufferings occasioned by that Complaint,	259
M. Louis on Phthisis,	261
Perforation of the Stomach	266

Staphyloraphia,	263
Hæmorrhage in Lithotomy,	269
Wound of the Abdomen—Protrusion of the Stomach,	271
History of a Child Deaf and Dumb from Birth, cured when Nine Years of Age,	274
Extraordinary Case of Hydrocephalus,	379
On the Duration of Human Life in France,	380
Case of Spina Bifida in the Neck, cured by Puncture,	381
Snails as an Article of Food,	381
Dr Goelis's Practice in some Diseases of Children,	382
Animal Magnetism,	384
Twin Births,	387
An Account of the Pinta, or Blue-stain, a singular Cutaneous Disease prevailing in Mexico. By Samuel McClellan, M.D.	388
Case of obstinate Vomiting cured by the Extract of Marigold. By Dr Carter, of the Kent and Canterbury Hospitals,	390
Case of Difficult Parturition,	391
Actual Cauterity in Traumatic Erysipelas. By Baron Larrey,	392
Parallel between the Symptoms of the Cerebral Fever and Worm Fever of Children. By M. Gintræ, Physician of Bordeaux,	392
Vomiting of Fat and Blood,	396
Rupture of the Uterus in Early Pregnancy,	397

REVIEW.

Art. I.—Medical Researches on the Effects of Iodine, in Bronchocele, Paralysis, Chorea, Scrophula, Fistula, Lachrymalis, Deafness, Dysphagia, White Swelling, and Distortions of the Spine. By Alexander Manson, M.D.	33
Art. II.—The Works of Matthew Baillie, M.D. To which is prefixed an Account of his Life, collected from authentic Sources. By James Wardrop, Surgeon Extraordinary to the King, &c. &c. &c.	50
ART. III.—Medico-Chirurgical Transactions, Vol. XI. l. Part I.	66
Art. IV.—A Treatise on the Physical and Medical Treatment of Children. By William P. Dewees, M.D.	173, 282
Art. V.—An Epitome of Chymical Philosophy, being an Extended Syllabus of the Lectures on that Subject, delivered at Dartmouth College, and intended as a Text Book for Students. By James Freeman Dana,	190
Art. VI.—The Lectures of Sir Astley Cooper, Bart F.R.S. Surgeon to the King, &c. &c. on the Principles and Practice of Surgery; with Additional Notes and Cases. By Frederick Tyrrell, Esq. Surgeon to St Thomas's Hospital, and to the London Ophthalmic Infirmary,	193, 310, 401
Art. VII.—Anatomie Pathologique. Dernier Cours de Xavier Bichat, d'après un Manuscrit Autographe de P. A. Béclard; avec une Notice sur la Vie et les Travaux de Bichat. Par F G. Boisseau,	277
Art. X.—A Manual of Chemistry on the Basis of Professor Brande's; containing the principal Facts of the Science, arranged in the Order in which they are discussed and illustrated in the Lectures at Harvard University, N. E. Compiled from the Works of Brande, Henry, Berzelius, Thompson and Others. Designed as a Text-Book for the Use of Students, and Persons attending Lectures on Chemistry. By John W. Webster, M.D.	399

SELECTIONS.

On the Effects of Loss of Blood. By Marshall Hall, M.D. F.R.S. Ed. etc.	85
Extracts from 'Lectures and Observations in Medicine.' By the late Matthew Baillie, M.D.	215, 324, 415

INTELLIGENCE.

Impure Tartarized Antimony,	101
Medical Matriculations in Edinburgh,	101
New Mode of securing Anatomical Preparations in Spirits,	102
The Stomach Syphon, by Mr Bryce,	102

Remarks respecting the Coroner's Inquest held on a Patient who died in St George's Hospital,	103
Notice of Dr Chervin,	107
On the Extraordinary Obliteration of the Canal of the Strangulated Portion of Intestine, which has occasionally been produced by Adhesive Inflammation of its Mucous Membrane in Inguinal Hernia. By Thomas Bishop, M.D., Thorney, Northamptonshire,	108
Massachusetts General Hospital,	219
Boylston Medical Society,	219
Table of the Diseases, Casualties, &c. within the City of London, and Bills of Mortality, from December 14, 1824, to December 13, 1825; according to the Reports made to the King and to the Lord Mayor, by the Company of Parish Clerks,	220
Bill of Mortality for the City of Boston, for 1824,	221
Bill of Mortality for the City of Boston, for 1825,	222
Summer Course of Lectures on Midwifery,	224
Massachusetts Medical Society,	332
Medical Graduates in Harvard University in 1825, with the Subjects of their Theses,	334
Medical Lectures in Harvard University,	334, 434
Number of Medical Graduates in the U. S. in 1826,	432
Medical Prize Questions,	433
Dr Davis' Elements of Operative Midwifery, and Catalogue of Instruments described in that Work,	434
Public Lectures,	435
List of New Publications,	110, 223, 335, 438
To Correspondents,	112, 336
Erratum	336

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JANUARY, 1826.

[NO. I.

Desultory Outlines of Animal Life. By ELISHA NORTH, M. D.

[Communicated for the New England Journal of Medicine and Surgery.]

SECTION I.

THE sum of our knowledge respecting animal nature seems to be, that an animal body is a compages or family of organs, including the intellectual, as well as the more gross parts. That such organs consist principally of animal matter, and that such matter is less compact and more capable of motion, than many other kinds of matter, and possesses, while living, two principles of peculiar importance ; one of which may be called animal spirit or the vivifying principle of the circulating blood ; the other animal propensity. The latter of these principles, in connexion with animal structure, originates from the former. These two qualities or principles of matter united, are of a higher grade, than that principle of matter called chemical affinity. For the former are known to control, or counteract to a great degree, the latter. Vegetable propensity also possesses the same power. Why living animal matter should have a disposition or inclination to move or act in one way or manner, rather than another, the idea of which is expressed by the term, animal propensity, is beyond the reach of our knowledge. This principle is, however, known to descend from parents to their offspring. The same, or nearly the same, may be said respecting the existence of the animal spirit and its propensity, or even chemical affinity, and vegetable propensity, or animal idiosyncrasy, which is a peculiar kind of animal propensity. It is the laws of these principles,

only, with which we are acquainted. The animal spirit is to be regarded, as a general term for the vital principle, as it is diffused throughout the body, and as originating from the blood, and as giving, in connexion with organic structure, a general propensity to motion. Animal propensity is also to be considered as a general term, including many specific propensities. These last are often called organic propensities; and to distinguish one from another, the name of the organ is given. The word organic is used in its common acceptation, not in the sense given the word by Bichat, in his contemplation of the two lives. The animal spirit, when a specific meaning is wished to be given to a distinct portion of it, is sometimes called organic spirit, and the name of the organ mentioned. Animal spirit and animal propensity are both greatly diversified, in the organs of which the more perfect animals consist.—*The animal spirit or vital principle has its seat in, or originates from a particular condition of the blood, namely that of its circulation.*—This position is thus proved. Withdraw all the blood from an animal, which, as is well known, has been done numberless times, or stop its circulation, and all the phenomena of the vital principle cease. The existence of the animal spirit, or vivifying principle originating from the circulating blood, or organic gas, or halitus, or vital principle, or principle of life, or whatever else it may be called, is known principally, if not entirely from its effects. The animal spirit however may be perceptible to the sense of smell, nothing to the contrary being known, if not to the taste and touch. The smell of different animals is different; so is also the smell of a living and recently dead animal. The taste of living flesh is different, independent of its warmth, from that of dead flesh, at least it is apprehended that those animals who eat living flesh would tell us so if they had the power. The touch of living flesh differs from dead, aside from the variation of temperature. It is immaterial whether the animal spirit is separately and distinctly tasted and felt, or whether it only occasions the difference, just considered. In either case the existence of the animal spirit is proved. There are phenomena, visible, which show that the animal spirit exists; and that it is more abundant, or at any rate that it possesses more power over the organs of the same animal at different times. It is evident that the excitability of all the organs depends on this principle, in combination with their structure. For there is no excitability in the organs when dead. The facility, ease and astonishing rapidity, with which animal motions are performed, depend on this important principle. That there is a hidden or invisible principle that moves the animal organs, and gives them sensibility and excitability, it is apprehended cannot be

disputed. The old name of animal spirit is thought to be a suitable one for this principle; other names have been given to it, but to some of these there are objections, which will be pointed out in the second section of this essay. It is highly probable that materials for the animal spirits, or organizable matter which contains that spirit are supplied by the blood most plentifully to certain parts which are at a distance from the heart. Hence the brain, organs of sense, including the skin and the organs of generation, possess more sensibility and excitability than the more central parts. A surplusage of such matter also probably occasions the growth of those vegetables, or part vegetables which are called hair, wool, feathers, scales, teeth, horns, &c. which grow on animal bodies. This conclusion is rendered probable from the circumstance that such vegetables are found more plentifully and grow to a greater size on and near to parts which are the most sensible. Teeth and hair sometimes exist in the ovaries of females. This fact shows a strong tendency in animal organizable matter to form such substances. There is a curious contrast between the torpid irritability of those partly vegetable beings which grow on animals, and the vivid excitability and acute sensibility of the parts from which they proceed.

A few words on the organic propensities, for they are almost innumerable, must suffice. The organ of the eye has a propensity for seeing almost, if not entirely, independent of the brain; the ear for hearing. The other organs of sense have their peculiar propensities. The brain has a propensity for sensation, for volition, for knowledge, for ideas, and for associating ideas together, and it is aided in gratifying its propensities by the organs of sense. Some of the intellectual propensities have been called instinct. The brain has also a propensity or power to control or govern the voluntary muscles. The muscles have a propensity for motion, and are often excited into action by the uneasiness arising from quietude; and this is done almost, if not quite independent of the brain; and they have also a propensity to rest when fatigued. They have also a propensity to submit to the government of the brain, especially the voluntary muscles. The internal and more hidden organs have also their propensities, although not so obvious. The stomach has a propensity for food, and that too independent of the brain, which in common language is called appetite. The rectum has a propensity to expel useless matter, so has the bladder. The female gravid uterus acquires a propensity to expel a full grown foetus. The liver has a propensity to secrete bile, independent of the brain. The other internal viscera have their peculiar propensities. The sanguifer-

rous system has a propensity for chyle and blood. The lungs for air. The nervous system, brain and muscles, have a peculiarly strong propensity for a large portion of the animal spirit, which is changed or modified into their organic spirit. Distinct animals have different propensities; so also have the different sexes of the same species of animals. The propensities of the same animal vary at the different periods of its existence. Two animal propensities existing in the sexual organs of two different beings, and two voluntary powers found in the same beings, all acting at the same moment, produce a new being, having the propensities of the parents.

The phenomena of the more perfect animals show that the matter, taken in for their nutrition, is subjected to or undergoes constant transmutations, until a part of it is incorporated with the body, for its growth or repair. Another part is changed into the animal spirit, to give activity and motion to the whole. The remaining part is thrown out of the body by the various emunctories as useless. Nutritious matter is prepared for such changes, as have been just considered, by having been previously organized.

Most of the animal organs perform double functions, and each organ is subservient to some other, and needed each by the other. A circle, or chain, or family of organs is thus constituted—at the head of which, in power, is the brain. Or, according to Drs Gall and Spurzheim, the brain is an assemblage of organs. All the other organs of the body are either directly or indirectly subservient to this all powerful one; and their well being is also dependent, in a great measure, through life upon the correct, wholesome and controlling influence of this one organ, (or organs.)

The brain, like the other organs, performs a double function, besides innumerable minor ones, for it has not only great power directly and indirectly over the functions of the organs of its own body, especially the voluntary muscles, but possesses or is endowed with the social principle, which gives power, more or less, over other animal minds, as well as other things.

This principle is of a very plastic and yielding nature, owing probably to the organic spirit of the brain being much more highly spiritualized, than that of the more gross organs. The structure of the brain is also much more easily acted upon.

There are phenomena to show that the animal spirit may be increased in power in a particular organ by the management of the individual. Long continued exertions of the brain increase its energy; but at the same time diminish the force of the muscular system, and impair the digestive functions. So also, on the other hand, muscular power is increased by labour

and mental energy diminished. Long life and the health of the individual require that there should be maintained a proper equilibrium of the vital or organic principle. For the want of the preceding information or the prudence which it dictates, many ingenious young men, ardent in the pursuit of science, become premature tenants of the grave.

The social principle of the individual, owing very much to a propensity to imitation, is very much under the control or government of the body politic of the species, to which the animal belongs; and is capable of being moulded by education into such a shape, as the body politic, or society, for its own good, or through habit, may direct or require. Hence arise (the animal propensities having their proper influence) all the modes of government, languages, human religions, systems of morals, fashions, customs, &c. found on this globe. The more powerful govern the weaker, and the many the few. But it is not proposed to enter any further upon the important subject of government, religion and morals.

It is the business of the physician not only to make himself acquainted with the laws or propensities of organized life, in their healthy or natural state; but also to become well acquainted with any derangement of those laws, constituting disease; and with the remedies useful for the cure or relief of all disorders.

A physician when called to a patient should investigate what organ or number of organs are deranged, either in structure or function. In this inquiry, important information may often be obtained from the main organ of the patient, or from his friends. The physician's power is very limited; for all the organs of the body are so much under the influence of the propensity of the brain, which propensity is called the will, that without the aid of that, we can do very little. The Doctor, however, when satisfied that the patient will follow his prescriptions, should consider what remedies experience has ascertained to have a salutary effect, either directly or indirectly, upon the organ diseased. Or if an assemblage of organs are deranged, a complication of remedies is often indicated.

The physician, and the patient, if an intelligent one, has the consolation of knowing, that there is a propensity in the organ or organs disordered to right their own injuries, independent of remedies. This propensity is called the *vis medicatrix naturae*, by physicians: and is often sufficient to cure light maladies without aid or with very little.

It should not be forgotten, that the chylopoietic or digestive viscera, and the respiratory apparatus, support the sanguiferous system; and that this last, sustains the nervous system, including the brain; or at any rate supplies materials for the growth

and repair of this system, and also materials for its organic spirit. And yet in their functions each of these two systems are needed by the other. The respiratory organ is important, because it is necessary to the circulation of the vital fluid. But whether respiration oxygenizes or decarbonizes the blood or both, is not fully agreed on by physiologists.

Such important parts, which sustain all the other parts of an animal, should be kept sound, as long as may be, or until the animal is worn out. And, fortunately for the inferior animals, including man in his more natural state, their own experience, aided by the powerful and almost irresistible double propensity, on the one hand of procuring pleasure, nutritious and stimulating matters for food, &c. and on the other hand, avoiding or obtaining relief from uneasiness and pain, is sufficient in general to teach the knowledge needed for such purpose; and that too, however humiliating it may be to the medical profession, without the aid of the physician. This double propensity of procuring pleasure, or of obtaining relief from pain, is the cause of all animal exertions. Hence, unhappiness, to a certain degree, should not be complained of. All animal propensities on the one hand, should be moderately indulged; and on the other hand they should be kept under suitable control by the governing propensity of the brain, or in common language the will.

From the view now taken, it is evident that the blessing of a sound mind, as well as that of a sound body, depends very much upon one's-self and friends.

An acquaintance with chemistry, anatomy, physiology, and with the writings of Dr Darwin, John Hunter, Dr John Brown, and others, is needed, fully to comprehend the preceding outlines of what is known respecting animal life.

This kind of erudition is possessed by medical men; and such views as have been taken are conscientiously believed to be useful to the physician; and as to others, their effects will probably be of little or no moment. To remove prejudices respecting men and things, errors, false doctrines, wrong associations, false views of religion, or government, or medicine, or whatever else may injure society, is a Herculean task. Such objects cannot be effected but in a partial manner, and by degrees. It must be done by the expansion of the human intellect, by the diffusion of information, and by the gradual improvements which may be made in a social state. Mr Godwin and other political writers who contended for the perfectibility of human nature, were too sanguine in their expectations.

The laws of organized life, both animal and vegetable, are perhaps as well explained by Dr Darwin, having reference to the first volume of his *Zoonomia*, and to his *Phytologia*, aside

from his fundamental error respecting the seat of his spirit of animation and his very unfortunate arrangement, as by any single writer. He is however often visionary. We are also much indebted to John Hunter, Dr Hartly, and others ; and even to the eccentric Dr John Brown, for new views on the subject of organized life. Dr John Brown is entitled to the honour of first teaching the important doctrine, that life is a forced state. But, in almost every other respect, his book was a very defective one, and has done much harm, as well as good. The Doctor was so unfortunate as not to understand, that the excitability of the different organs was different, and that these excitabilities do not exist independent of another very important principle, namely, the animal spirit of the blood. He regarded the blood merely as other stimulants, acting upon a general excitability of the system. This was an unfortunate view of the case. For, the sanguiferous system, has providently blood enough in store at all times in healthy animals to furnish animal spirit or the principle of life, for a number of days ; and in some animals, even for months, if the animal uses it economically, by remaining torpid, which can be done in case food is not to be had.

He also considered the excitability as a single, (not one,) and indivisible principle, the excitement of which was always kept either below, or above, or at par, according to the quantity of stimulants used, &c. The want of the knowledge of the animal spirit, and the various excitabilities and propensities, led him into great errors and spoiled his whole system.

SECTION II.

The terms *sensorial power*, and *spirit of animation* used by the ingenious Dr Darwin, and adopted by the learned, judicious, and systematic Dr Good, and assented to by those medical characters, in London, (as we have a right to presume,) who reviewed his work, previously to its publication, are very objectionable, as it implies, that the vital principle originates from the brain.

Indeed, Dr Darwin's whole system is founded upon such an opinion.

If the animal spirit, or its materials, be supplied by the circulating blood, in a direct manner, to *all* the organs, and then modified, so as to be adapted to each organ, as is maintained in the preceding section of this essay, then it is evident, the term sensorial power should have a specific meaning, and be applied only to the organic spirit of the brain.

The seat of the principle of life, instead of being in the brain, as was supposed by Dr Darwin and his venerable followers ; or in the spinal marrow, as supposed by Dr Le Gallois ; or in-

stead of its having two seats, one in the brain and one in the heart, as maintained by the much lamented Bichat; is in my apprehension in the circulating blood. It is believed that this has been in every age, the general opinion among the unlettered part of society. Hence the blood has been called the VITAL FLUID. It is pretty easy to perceive how such an opinion should have originated. For most persons occasionally see animals bleed, until the vital principle forsakes the body. Then they naturally infer, that the blood is the seat of that principle.

Some respect should be paid to so common an opinion, by those whose minds are peculiarly liable to be under the influence of the hallucinations of science.

In confirmation of my opinion, I think proper to furnish the reader with the history of the following case; asking his patience for the length of the story. Several years since, I delivered a woman of a full grown infant; this was done by the feet, these being the presenting parts. When I had hold of the feet, I had conclusive evidence that the infant was alive, and it was brought into the world without the least difficulty. But it neither cried nor breathed, nor made the least effort to do either; and died immediately after it was born. The child however was deformed in the head. And it was soon afterwards ascertained, by a careful dissection, made for that purpose, that not only the whole brain, but the medulla oblongata and the whole of the spinal marrow were wanting. The vertebral canal contained a little aqueous fluid only. The organs and features of the face from the eyebrows were natural. But there was no fore-head nor cavity to contain a brain. The posterior part of the head appeared, as if it had been compressed, upon the posterior part of the bones of the face, and, as if they had been afterwards formed into a thick *ossified* mass, of a bloody colour and without hair. There was no other defect; for the whole child was dissected with a view to my own improvement, and that of some pupils, who were studying anatomy.

I must once more beg the reader's patience, until he is put in possession of my conclusions from the facts now given him.

This foetus lived and grew, so long as the deficiency, occasioned by the loss of the brain and its common appendage, was supplied by the power of the mother. This child had blood, and the animal spirit, or living principle. This animal spirit *could not have originated from the brain or spinal marrow*, for these were wanting. My conclusion was that the animal spirit originated from the circulating blood; and that, had there been a brain and spinal marrow, these parts would also have been supplied with blood and animal spirit.

It is not apprehended, that it will seriously be contended, that the function of the brain of a *sætus*, is directly sustained by the mother, without the aid of its own organs ; or that, because the brain is necessary to life after birth, therefore it must be the seat of that life. For the brain is known to be dependant upon the sanguiferous system for materials for its own life. The reader will now perceive, why the use of the fashionable terms, sensorial power and spirit of animation have been avoided in the first section. There would be no reasonable objection to the use of the latter term, or expression, if there was any way to get rid of the impression made by Dr Darwin's definition of it.

SECTION III.

The food an animal eats is converted into blood. The air breathed is necessary to the circulation of that blood. The circulating blood nourishes and repairs the organs, and sustains the animal spirit. Each organ has its peculiar propensity and function. The animal spirit is a perpetual stimulant, vivifying all the animal organs. Animal heat and electricity are also constantly operating. For pleasurable purposes, other exciting powers are frequently used. These last are not absolutely essential to life. Hence it is evident that life is a forced state, and that it is sustained by the air breathed and aliment received.—It is equally evident that the phenomena of life are the result of organization.—And with regard to the inferior or meaner animals, it is apprehended that this position will be generally admitted.

The life of an animal organ consists in the union of animal or more strictly speaking, organic spirit and organic structure imparting a specific propensity. In some organs or parts, as horn, hoof, and hair, this propensity resembles in some respects that of vegetables. In many of the organs if we have reference to the excitability, wants and propensities, rather than to their form and locomotive powers, the resemblance is like that of the lower grade of animals. The life of a complicated or more perfect animal, consists in the union of many such various kinds of organs, each needed and dependant on the other, all operating to produce two effects, namely, to continue their own existence an allotted time, and also to perpetuate the species ad infinitum, or an unknown time.

New London, (Conn.) Sept. 26th, 1825.

Some Account of the Measles as they appeared in Boston in the year 1825.—By GEO. HAYWARD, M. D.

[Communicated for the New-England Journal of Medicine and Surgery.]

THE Measles prevailed to a greater extent in this city during the last winter and spring, than they have been known to for many years before. The first cases occurred as early as the latter part of January, and there were a few remaining ones in the latter part of July; by the first of August the disease had almost entirely disappeared. It attacked persons of all ages, many adults, who had been before exposed to it, and who believed that they were not susceptible of the contagion, became affected by it.

No abatement was discoverable till the early part of June, when it began to yield pretty rapidly, rather I should think from the want of subjects than from the approach of hot weather. Though it spread so extensively and continued so long, it was marked by no symptoms of peculiar violence or malignancy, and on the other hand it was not of so mild a character as I have seen it. I should not therefore, have thought it worth while to have made this communication, had it not been for a few circumstances connected with it.

There was a stronger disposition to sloughing in the integuments on the application of blisters, both during the eruption and after it had subsided, than I had ever before seen. This appeared to be in no way connected with the length of time which the blister was continued on; in the most severe case that came under my notice it remained applied but four hours, when it was removed every particle of the flies was carefully washed off; the surface was dressed with simple cerate, and yet the whole integuments, which had been vesicated, sloughed so as to leave a part of the pectoral muscle on each side exposed to view. The patient, however, did well. The parts were covered at first with a poultice, in which was mixed a large quantity of yeast and powdered charcoal, and as soon as the sloughs began to separate, a dressing with equal parts of powdered bark and charcoal was applied. This was continued till the surface became clean, and then the edges were approximated as much as possible by straps of adhesive plaster. It was many weeks, however, before the ulcer was perfectly healed.

From the extreme suffering in this, and a few other cases of a similar though less severe character, I should I confess feel some hesitancy in resorting to the same means, under similar circumstances, though I know not what substitute there can be for vesication, in all cases in which its use may be indicated.

It has been suggested, that the same effects would not follow the application of a blister, which was continued for twenty minutes or half an hour only ; but I should apprehend that if it were applied sufficiently long to produce the desired effect on the surface, that is vesication, the danger of sloughing would be equally great, as if it were continued the usual period, for it is obvious that the blister ceases to irritate the integuments, the moment the effusion has taken place.

Another circumstance worthy of notice, perhaps, came under my observation. A child of five or six years old, had the disease with perfect mildness, the catarrhal symptoms were not severe, and the eruption was not greater or deeper coloured than it usually is in the mild species of measles. The day after the eruption had begun to disappear, and the small scales were falling from the cuticle, the cheeks became suddenly of a purple colour, approaching nearly to black. It had precisely the appearance of a deep coloured ecchymosis and the blood must, I think, have been effused from the capillary vessels. The appearance was singular and novel, and would have alarmed me extremely had it been attended with any unpleasant symptoms ; but so far from that being the case, the child appeared to be in other respects perfectly well, without the least fever, and with a good appetite. Under these circumstances I directed merely a light diet, a mild cathartic, and a spirituous application to the parts. The appearance gradually subsided, and in the course of three or four days was entirely gone.

The disposition to pneumonia, after the measles, was greater, I thought, this season than usual. This might not have been the case throughout the city. I am inclined, however, to think it was. The affection of the lungs was generally obstinate, and in some instances severe, but its mildness or severity appeared to be wholly independent of the character of the previous disease. Some of the worst cases of pneumonia which I saw succeeded measles in the mildest form.

The remedies which were chiefly relied on in the management both of the primary and secondary diseases were emetics, blisters, the warm bath, the inhaling of aqueous vapour, mild expectorants and *cooling* drinks. Even *cold* water was freely allowed, and I could not discover the slightest inconvenience in a single instance from the use of it ; on the contrary it was preferred by the patients, particularly when some vegetable acid was added to it, and its good effects were frequently very striking. This circumstance is particularly noticed, because a very popular writer, Dr Good, is of opinion that the drink should be warm, which is given during the measles.

The measles as well as the pneumonia that follow were certainly much more fatal in former times, than they are at pres-

ent. 'Dr Morton*' relates that in the year 1672, this distemper was so terrible, that in London there died of it 300 every week.' The epidemic that season, however, was of a highly malignant character. Sydenham in speaking of the pneumonia which so often succeeds the disease, remarks that 'this disorder attacks children upon the departure of the measles, and proves so fatal, that it may justly be esteemed one of the principal ministers of death *destroying greater numbers than the small-pox.*'

In a note to page 244 of Dr Willan's work on Cutaneous Diseases may be found a statement which will enable us to form some opinion as to the fatality of the measles at a more recent period. After remarking that some had supposed from reading Sir W. Watson's account of the disease as it appeared in the Foundling Hospital in London in 1763 that 'there must be something amiss in the state of the air, the diet or general management of the children' in the Institution, he observes, that there is no ground for this suspicion. 'The regulations remain nearly the same as first framed by the Governors, yet their active and intelligent physician, Dr Stanger, informs me that the measles, during the last twelve years, have never appeared in any other form than as described by Sydenham, and though frequently occurring there, *that they have not been fatal beyond the usual proportion.*' 'Thus, in the year 1798, 25 boys and 44 girls, had the measles: 6 of the latter died. In autumn 1800, 29 boys, 37 girls were affected, and 4 boys died of the disease or its consequences. In 1794, 28 had the measles, and all recovered. In 1802, 1 died out of 8 children affected.' According to this statement it appears, that during the several years named 171 children had the disease, 11 of whom died, being in the proportion of about 1 to 15 1-2, and Dr Willan informs us that it was not fatal beyond the usual proportion. I have no precise data to which I can refer to show the proportion which the number of deaths from measles in this city bears to the number of cases; it is in fact impossible to have such data, because so many cases occur for which medical advice is never obtained. But I am confident that for the last ten years the number of deaths from the measles and the pneumonia which follows, has not been in this city, when compared with the number of cases, in the proportion of 1 to 171. Every practitioner among us who has seen much of this disease will concur in the opinion expressed, I believe, by Dr Jackson in the New England Med. Journal for January, 1817. 'It is not easy,' says he, 'to find an instance of death from measles, where the patient has

had a fair chance for medical assistance; and very few instances occur of death, from this disease, even where no regular attention is paid to it.'

Are the measles then really a more severe disease in Europe than they are in this country, or is the greater fatality which attends them there, attributable in any degree to the method of treatment? From the time of Sydenham to the present day, remedies of a much more active character have been employed in Great Britain in the management of measles and its consequences than are usually resorted to under similar circumstances in this country. Bleeding has been considered by many of the most enlightened physicians as a remedy of the first importance, not to be reserved for extreme cases only, but to be used in most instances where medical aid is required. They never seemed to doubt the propriety of resorting to it at all, the only question was as to the best time of employing it. Morton recommended it as soon as the eruption was out, Sydenham deferred the use of it till the eruption had disappeared, and Mead thinks it proper at any time, and censures the other two for not employing it more frequently and more freely. Dr Heberden concurs with Dr Mead in opinion as to the propriety of bleeding in every stage of the measles.

The measles, being a disease of a specific contagion, governed by peculiar laws, and destined to go through a certain course, may, one would think, be aggravated by any violent means that should interfere with those laws or interrupt that course. I of course speak of the disease in its simple, mild form; when connected with local inflammation, no doubt active remedies are necessary and are always resorted to in this country. Dr Armstrong, however, and some other English physicians appear to think that there is danger of interfering too far 'with the operations of nature' in this disease and rely in ordinary cases upon regimen and mild means. It is certainly more candid to suppose that the disease has formerly assumed if it does not at present, a worse character in Great Britain than it does among us, and to this cause mainly must be attributed its greater fatality there. The difference in the number of deaths from measles in that country and this is too great to be attributed to any mode of treatment, nor can we suppose that the British physicians who are so enlightened upon all other subjects of their profession should be so much in the dark with regard to this.

It must be admitted, I think, that the diet and regimen have as great an influence on the character of this disease, as on that of any other, not excepting small pox, and upon these very

points great diversity of opinion has existed among physicians. In former times the patient was kept hot, usually in bed, the temperature of the room raised to a high degree, and large doses of stimulating medicines were administered with the view of driving out the eruption and keeping 'the disease from the heart.' At the period when the change took place in the management of the Small Pox, a similar change was adopted with regard to the measles, from a supposed analogy between the diseases. The same good effect however, did not follow the adoption of the cool regimen for the latter disease, that was experienced from it in the former, though it probably was a better course than the one for which it was substituted. The method which I believe is usually pursued here, and which is similar to the one recommended by Armstrong, is to keep the patient if possible in a large, well ventilated apartment, at a temperature of about 60° during cold weather, to confine him to a light diet, with cooling drinks, and occasionally to administer a mild cathartic. This practice is usually sufficient in the mild form of the disease; when severer symptoms appear, other remedies are of course made use of, but even these are not of a very powerful character. In the cases of more than two hundred patients that came under my care with the disease the last season, blood-letting was not employed in a single instance, and every individual recovered, and this will not be considered by those physicians who were acquainted with that epidemic, to have been very remarkable success. How far the disease this season was rendered mild by the regimen, I leave to others to decide.

Dec. 1825.

MISCELLANEOUS NOTICES.

Oil in the Serum of Human Blood, in an extract from a letter of TH. S. TRAILL, M. D. of Liverpool.—Another case of this remarkable occurrence has lately fallen under my observation. The following account of the history of the case transmitted to me, with the serum, by Mr Ashton, a highly respectable practitioner at Prescot, will be interesting.

‘Dear Sir,—I dare say you will recollect, when we were in attendance on Mrs B—, that I mentioned the case of a man, the serum of whose blood was cream-coloured. You were so kind as to promise to analyse it, but it had been inadvertently thrown away. He was bled twice on 21st of April, and the serum was of the colour above mentioned. Anxious to procure

some of the same, I bled him again on the 24th, but the serum of that blood was nearly natural. The man recovered, but he was taken ill a few days ago. I saw him on Saturday evening, (July 2d) and found him very feverish, with great difficulty of breathing, *stitches* about his ribs, and acute pain at the pit of his stomach. His tongue was white, and thickly coated; pulse hard, full, and strong. I bled him to the amount of 24 ounces, which relieved him immediately, and I herewith send you some of the serum of his blood. It has just the same colour as it showed in April. He is a person who lives rather *intemperately*. I am, Dear Sir, your's truly, E. ASHTON?

This serum had a rich isabella-yellow, or cream colour. It was, when recent, a homogenous fluid of the consistence of rich cream; but, on being kept, it coagulated so as not readily to pour from the bottle.

On analysis, it yielded the same ingredients as the former specimens; but the proportion of oil in this was greater than in any which I had before examined. A paper dipt in it, and applied to the flame of a candle, did not inflame; but it scarcely crackled in the flame, when applied to the wick, as watery fluids usually do.

This case shows, that the appearance of oil in the serum of the blood is the consequence of disease, and that it soon disappears when the inflammatory complaint is subdued. In all the cases of this sort, which have fallen under my observation, the patient has laboured under internal inflammation, affecting the chylopoietic viscera, and has been more or less addicted to the abuse of strong liquors.

Does this tendency to the formation of oil, or at least to its presence in the circulating fluids, throw any light on the very extraordinary cases of what has been (probably erroneously) called the SPONTANEOUS COMBUSTION of individuals addicted to intemperance?—*Edin. Journal.*

*Case of Universal Anchylosis, by Giovanni Battista Grabner Maraschiu, (Omodei's Annali Universali di Medicina for October and November)—*A countryman, 46 years old, of a strong constitution, and always enjoying good health, caught, in 1815, a clap, and, shortly after this, was seized with pleuritis; and then, after being cured of both his complaints, was attacked with pains in all his limbs of a rheumatic arthritic kind, (*un' affezione artritica d'indole reumatica*); the pain first appeared in the ankle-joints, then in the knee, and, lastly, in the hip-joints. He tried the baths of ABANO without any benefit, and continued till April 1817 just the same, when the disease proceeded to

the joints of the upper extremities, the vertebræ, and, lastly, to the jaw. The motions of the joint gradually diminished, the patient suffering no pain; and, in February 1818, general ankylosis began to manifest itself, and could not be prevented by any means whatever. After keeping in the recumbent posture for six years, the ankylosis had become quite general, with the exception only of the ribs, which still maintained a little motion. The joints are neither swollen nor painful, the functions of the body are natural, the sensibility only of the skin of the extremities appears diminished, and the patient has an evacuation but once in fourteen days. The unfortunate patient is kept alive by fluids, which are introduced into the mouth for him by assistants. The proximate cause of this disease consists in a peculiar disposition of the joints to exudative inflammation; and a syphilitic dyscrasis, or rather the absorbed gonorrhœal poison (!) may be regarded as the predisposing cause.—*Ib.*

Singular Case of Ascites.—A girl, thirteen years of age, the child of parents in extreme poverty, was seized, after an imperfect recovery from typhus, with pain in the region of the umbilicus, constant and sometimes very acute. The appetite was voracious, bowels irregular, countenance squalid, and body emaciated. A nutritious diet and various remedies were in consequence employed, but the abdomen rapidly enlarged, fluctuation took place, and the operation of *tapping* soon became necessary, and was repeated five times in about four months.

After the last operation a tumour formed at the umbilicus, soft, and easily reducible on pressure. As the abdomen enlarged again, this tumour increased to an enormous size, and the integuments became thin and pellucid. In it, then, when *tapping* again became necessary, it was determined to make the opening.

The introduction of the lancet was followed by an immense rush of water, and subsequently by the protrusion of several transparent vesicles, which, as they gradually emerged from the aperture, became distended with water also. The chain of vesicles thus formed reached from the umbilicus to the floor (the patient sitting on a chair), and was suspended by a pedicle as thick as the little finger. This pedicle being divided, the entire mass, which resembled an immense bunch of grapes, was removed. The wound soon healed, the umbilicus resumed its natural appearance, all pain and uneasiness vanished, and up to this period (now twelve months) there has been no return of swelling or disease—June 1825.—R. LONG, M. D., in *Lon. Med. Journ.*

Cases of Lingering Labour, &c., treated by the Secale Cornutum.—Natural Births.—1. Howard, aged forty-seven, seventh labour. Had been delivered of one child still-born—at the end of fifteen hours after, there was no return of *pain*, nor any attempt on the part of the uterus to expel the second child, though friction had been applied to the abdomen, and an enema had been administered—she had slept also, and breakfasted. An infusion of the *secale cornutum* was now given*—in ten minutes after the *pains* came on, and within an hour the child and double placenta were delivered—mother and child both well.

2. Patient's third labour—membranes broken and waters discharged during the first twelve hours—at the end of thirty-six hours no *pains*, the child's head at the brim of the pelvis, the os uteri soft, dilatable, and larger than a crown-piece.

The infusion of the *secale* was now given—in five minutes after the *pains* returned, and within an hour the labour was over. The child, a large boy, was apparently still-born, but soon recovered.

3. Roberts—had been in labour upwards of thirty-six hours—and been bled, and an enema and opiate had been administered—was quite free from *pain*, but unable to lie down—the os uteri fully dilated, and the head firmly wedged in the brim of the pelvis—the parts puffy, but not hot.

The infusion of the *secale* given—in about five minutes after, a sharp *pain*, in half an hour after, the child born, and in less than another hour the placenta expelled.

The child was at first not very animated, but it soon did well. This was in March 1821.

4. Same patient—was again delivered (September 1822), after a long protracted and severe labour, by the aid of the *secale*, which operated in ten minutes after being taken—mother and child both well.

5. Gravel—two days and a night in severe labour, strength much exhausted, child's head impacted—the *secale* administered—child born in twelve minutes after—mother and child both well.

6. Mrs. R.—after being in labour eighteen hours, and much exhausted, was delivered of a fine child by the aid of the *secale*—mother and child both well.

Still-born Cases.—7. Wall, aged twenty-nine—had been in labour (first child) about forty-four hours—parts fully dilated,

* The infusion employed in these cases (unless where it is otherwise expressed) was that formed by adding one drachm of the *secale* to three ounces of boiling water.

presentation natural—one scruple of the *secale* in powder given—in about five minutes violent bearing-down *pains* came on, and in about two hours a *still-born* male child was expelled—the placenta was retained for a short time.

8. Mrs. L.—had been in labour for twenty hours, during the last five of which the os uteri had been fully dilated, and the child stationary—strength much exhausted, *pains* feeble.

An infusion of the *secale* given (one scruple to two ounces of water), which produced some effect on the pulse and *pains*—in ten minutes after, a second dose of the same strength, which increased the *pains* to a great degree—in thirty-five minutes more, the child not having advanced, a third dose of the same kind was given—and in fifteen minutes more a fourth dose—to this, violent uterine action immediately succeeded, and in a little time a large *still-born* child was expelled.

In this case, the perinæum and external parts seem to have continued tense and rigid almost up to the moment of delivery.

9. A. T. aged forty-two—first labour—after being in labour for more than three days, during the whole of which time the *pains* were feeble and inefficient, the effusion of *secale* was given—in half an hour after the *pains* increased considerably, and continued with much force until a *still-born* child was expelled—six hours after the infusion had been taken.

10. Mrs. P. aged forty-three—first child—upwards of eighteen hours in labour—head low in the pelvis—*pains* few and feeble—soft parts relaxed—the infusion of *secale* given—in less than ten minutes after, a *pain* came on, which was followed by others, increasing in force and frequency for upwards of an hour, when a *still-born* child was expelled. In this case the placenta was retained by uterine contraction for about three hours after the birth of the child.

Cases of Abortion.—11. Page, aged twenty-two—first pregnancy—fœtus expelled, apparently about the fifth month—in about six hours after, the placenta being still retained, the infusion of *secale* was given—no effect of any kind produced. Two common enemata were subsequently administered, which caused the discharge of a quantity of hardened fæces, and a continued desire to go to stool—in a few hours the placenta was found in the vagina and easily removed.

12. Mrs. —, the mother of many children—abortion and removal of a fœtus in the fourth month—second fœtus and placenta retained—laxatives and enemata were administered; and on the second day after the delivery of the first fœtus, three doses of a strong infusion of the *secale* were given, which produced no effect of any kind. On the fourth day a spontaneous

discharge, first of water and then of blood, took place, and the second *fœtus* and the *placentæ* were after some difficulty removed.

Cases of Uterine Tumour.—13. Miss M. had been long suffering from uterine disease, and one large tumour had been removed from the vagina (by ligature), which was now filled by another—of this large portions occasionally came away, and in order to induce the uterus to expel the whole into the vagina, the *secale* was administered. Three doses, of twenty grains each, were given in the course of a few hours. By these, violent *bearing-down pains*, having all the characters of uterine contraction, were produced, which lasted for many hours—during one of these a large lump of the tumour came away.

In a few days the exhibition of the *secale* was repeated, and with a similar effect ; but its use was then discontinued, the growth of the tumour appearing to increase more rapidly in proportion as parts of it were removed.

14. Dill—a tumour in the vagina coming down from the uterus, very much resembling the preceding case. In order to bring this tumour more under command, the *secale* was given in scruple doses, and with effects very similar also. The tumour was then removed by ligature, and effectually it would seem, as it has not re-appeared.—*Dr Davies, Lon. Med. Repos.*

On the Closure of the Pupil in Iritis.—Although the closure or obliteration of the *pupil* is the most important symptom or consequence which takes place in iritis, no satisfactory explanation has as yet been offered of the manner in which it is produced.

The mere inflamed state of the *iris* will not account for it—nor the effusion of fibrine into the posterior chamber—nor intolerance of light, for this is not generally present—nor inflammation of the retina, for this is as rare.

But if, as seems more generally agreed on by anatomists, the *pupil* during sleep be always naturally in a closed or contracted state, this circumstance will go far to account for the remarkable symptom here alluded to ; for during this period of rest adhesions would be more apt to take place than at any other time, and such adhesions would of course have the effect of retaining the pupil in a state of permanent contraction.

This suggestion, for which we are indebted to Mr Mackenzie, of Glasgow, is one of practical importance, for if admitted, it will lead to the employment of proper preventive measures, such as the application of the belladonna regularly *before sleep*.—*Lon. Med. Journ.*

*On the Croton Oil.** By Mr Insp. TEGART.—Early in 1821, which was soon after the croton oil became known in England as an active purgative, Mr Tegart, Inspector of Military Hospitals, took with him to the West Indies, whither he was proceeding as principal medical officer, a considerable supply of that article.

It was the first taken to that part of the world, and being immediately distributed by Mr Tegart amongst the medical officers of the army under his superintendence, was soon exhausted, so that a fresh supply became necessary. This was speedily obtained from England, and being distributed in the same manner, the valuable properties of this oil soon became known throughout the greater part of our West India settlements; and even reached the ears of Dr Lefort, chief of the French medical staff in that quarter, who, in consequence, applied for and received from Mr Tegart a small quantity of that in his possession.†

From the medical officers of the army, four practitioners in private life, and from Dr Lefort, Mr Tegart, in due time, received communications; confirming fully, as he states, the favourable opinion he had himself been led to form of the efficacy of this medicine in tropical complaints.

As a purgative, he says, 'it has never disappointed my views, when exhibited in proper time;' and I have known it act powerfully in many cases, when calomel, scammony, gamboge, and other drastic purges, had been employed in vain.

But it is not as a purgative alone that this oil has been found useful; for it has been successfully employed, both in military hospitals and in private life, in all cases of acute disease requiring depletion, either by the alimentary canal, the kidneys, or the skin.

Thus, dissolved in spirits of wine, and properly diluted, so as to be given to the extent of about half a drop every three or four hours, it keeps the bowels open, increases the urinary discharge, and relaxes the skin.

In apoplexy, and in coup de soleil, its good effects are stated to be very marked—in the former disease, says Mr T., I have known a patient, who was insensible and incapable of swallowing, purged and relieved in one hour, by merely putting one drop of the oil upon his tongue.

* Extracted from a communication addressed by Mr Tegart to Mr Short, by whom the croton oil was introduced into England. This communication (dated London, May 22, 1825,) is given at length in the London Medical Journal for August, p. 105.

† Dr Lefort, it appears, was so well satisfied with the result of his first trials, that he immediately sent to England for a large supply of the oil.

In yellow fever, he says, I know of no remedy which has done, or is likely to do, so much good ; for two or three drops applied to the tongue will soon find their way to the stomach, and at once relieve the incessant vomiting and obstinate constipation which so generally attend this disease—and this, too, at a time when no other remedy can be usefully exhibited.

In chronic affections of the viscera, also, it has been advantageously employed, and has acted powerfully as a hydragogue in dropsical affections of the chest and abdomen. In a case of tic douloureux, also, Mr T. adds, I witnessed a cure effected by it, when given with the intention of removing the torpor of the bowels which usually attends that disease.

In fine, the smallness of the dose, the facility with which it may be administered, and the certainty, energy, and rapidity of its action, all combine to render it a medicine of inestimable value in those climates, where disease is so frequent, and where delay is death.

The dose generally employed by Mr Tegart was *two drops*, laid upon the tongue. Exhibited in this manner, however, it excites great heat and irritation in the fauces, which he thinks of comparatively little importance.

To prevent this effect, Dr Lefort proposed that the oil should be exhibited in the form of pills ; but the constant and unvaried success which Mr T. had met with in dropping it on the tongue, rendered him, he says, unwilling to adopt this method. As, however, it sometimes creates nausea and sickness when applied to the tongue, he recommends it to be rubbed down with mucilage, and given in a little peppermint-water, when the stomach is in an irritable state.

In conclusion, Mr Tegart recommends that *glass stoppers* should always be made use of with the phials containing this oil, instead of *corks*, as the latter, he states, are frequently found to be in a decayed state, probably from the action of the oil upon them.—*Lond. Med. Repos.*

*Larvæ of Insects in the Human Stomach.—Case, with Remarks.**
Case.—A strong athletic countryman, who had been employed in the hay-harvest towards the end of June, was in the following month attacked with an uneasiness in the stomach ; which gradually increased to pain, occasionally severe, together with total loss of appetite, emaciation, and great debility.

For some time the remedies usually administered in cases of

* Extracted from a paper by Dr Yule, of Edinburgh, in the *Edin. Phil. Journ.* for July. p. 72.

indigestion were employed, but without any permanent relief. At length, after several weeks, a large hairy *caterpillar* was ejected from the stomach during a fit of vomiting, and from this time the patient daily improved until he recovered his former health.

Remarks.—From the circumstances of the case, it was impossible to ascertain with precision the nature of the insect to which this *larva* belonged; but the bands of black and brown longitudinally extended, and the long hairs with which it was beset, would induce us to refer it to the numerous tribe of moths (*phalena*) or to certain *tipulæ*, termed dragon-flies in this country (Scotland) by the common people.

To whatever species of insect, however, it belonged, it must have lived for several weeks, and grown to its full size, in the stomach of the patient, as the symptoms under which he laboured during this period cannot reasonably be attributed to any other cause than its presence in that organ.

Cases of this kind are occasionally reported, and demand, perhaps, more attention than they have in general received of late years. The subject, however, is involved in much obscurity, from the difficulty of ascertaining the nature of the *larvæ* ejected in most instances; for naturalists have hitherto paid but little attention to the structure and appearance of insects while in this stage of their existence. Some facts, however, upon this point have been ascertained, which shew that *larvæ* of very different kinds may inhabit the human stomach. Thus, Dr Reeve, of Norwich, in an early volume of the *Edin. Med. Journal*, mentions a case, in which the *larva* of the common *house-fly* (*musca domestica*) was voided by a girl, after it had been the cause of much distress; and an instance is given in the useful and popular work of Kirby and Spence, of several *beetles* (*tenebrio molitor*) having been vomited by a boy. The *larva* of this insect, we may remark, is the *meal worm* of the country people, now little known from the general custom of using *wheaten bread*, instead of *oatmeal cakes* as formerly.—*Ib.*

Hospital Reports, from l'Hotel Dieu.—Of the acute diseases during the first quarter of the present year, about a fifth proved fatal, which is a large proportion of death, even in the midst of a bad epidemic. Of the chronic diseases, the rate of mortality was rather more than one in four. The inflammatory complaints were chiefly of the digestive tube and of the lungs.—*Med. Ch. Rev.*

Perforations of the Soft Palate.—It appears that, till very lately, perforations of the *velum pendulum palati*, have seldom

been remedied by artificial means. Yet they are very distressing accidents, not only as affecting the voice, but the power of deglutition. We, this day, (7th July) saw a fine young woman, whose *vel. pend. pal.* has been perforated by an ulcer, leaving an oblong opening which permits the egress of fluid and soft substances through the nose, when she attempts to swallow. The case narrated by Mr Allan we have seen—and the simple remedy contrived by him appears to answer the purpose, at least for the present. The patient is a widow, 31 years of age, who applied to our author on the 1st July, 1824, to relieve her from a substance that was sticking in the œsophagus, which she described as a thin plate of silver, with a piece of sponge attached to it, and which had been adapted a few days previously with the view of closing an opening in the *vel. pend. palat.*, the consequence of an ulcer. The form of the aperture approached that of a triangle, the base being a quarter of an inch in length, and parallel to the margin of the velum. At this time the edges of the aperture were swelled and excoriated from the instrument applied,

Mr A. first attempted to close the aperture by suture, having pared the edges for that purpose. A partial success was the consequence. Another suture was therefore passed, but it cut its way out, and did no good. A third attempt was made, and with equal want of success. The aperture now remained nearly of a circular form. Mr Weiss next furnished our author with a stopper composed of two flat circular slices of India rubber, connected together by a neck of the same material, attached at either end to the centres of the circular pieces. The instrument then resembled an old-fashioned stud sleeve-button. The several parts, however, soon separated from the action of the saliva in the mouth. Our author then joined three pieces of the same material by means of a silk thread. The central piece sufficient to fill the aperture and the two other pieces overlapping the central one about the eighth of an inch all round, so that "when once one end was pinched up and introduced through the opening, it expanded behind the velum, and there was no probability of the instrument being displaced by any motion of the part." But the threads gave way, and then Mr Allan shaped a new instrument, of the form last described, out of solid India rubber, making the overlapping parts convex towards each other, or where they are in contact with the velum, by which means irritation by friction was obviated. This apparatus had been in three weeks, at the date of report, and answered the purpose effectually.

Mr Allan suggests a similar contrivance for defects in the

bony palate. Mr Weiss, it appears, has furnished a person labouring under such defect with one of these, and reports that it answers the purpose well.

There is one objection, however, to the obturator for the soft palate, and it is an important one, namely, that the perforation is likely to get larger by its use—a fact which we have reason to know. Again, we believe we may confidently state that these perforations have a constant tendency to diminish, when not prevented, and that the greater number of them, in time, become almost obliterated. This circumstance would induce us to recommend patience under the inconvenience, till the natural cure has a chance of being effected.—*Ib.*

Idiotism of many Years Continuance, cured by the Extirpation of the Clitoris. The following case was communicated by a physician now practising at Berlin, and, although he has not allowed his name to appear, Professor GRAEFE states, in a note, that he is perfectly satisfied with the authority on which the case is presented to the public, and pledges himself as to its correctness. The family of the patient is very respectable, and now resides at Potsdam, near Berlin. The early history of the case was obtained principally from the young lady's mother, and is, in substance, as follows:—

“A. D. was born in 1807, and was, at the time of birth, a very healthy and well formed child. It was soon committed to the care of a very healthy nurse, with whom it thrived well, was active and cheerful. Nothing particular occurred until the child was about fourteen months old, when it was seized with a violent diarrhoea, in consequence of being allowed to remain with the nurse, who had an attack of fever, and owing to the improper treatment of the practitioner, this complaint continued, more or less alternating with constipation, for eight months. The child was exceedingly weakened, and remained so for a long time, so that it was not until the fourth year that it was able to walk. The development of intellect, at this period, was observed by the mother to be somewhat restricted, and, soon after this time, it was supposed, by the latter, that the disease began. At this period, also, the appetite was very voracious, whilst the greatest aversion was shown to fluids of all kinds. In the year 1812, Dr Brenner was consulted, who imagined that the disturbed state of the mental and physical powers was owing to the irritation of worms in the alimentary canal, anthelmintics were prescribed, and some worms discharged, but the state of the little patient remained just as before. Professors Wolfars and Horn were consulted in 1816,

and Dr Becker of Leipzig in 1818, who, after having tried electricity, alterative medicines, lotions, and injections of various kinds, gave up the case as incurable."

This little unfortunate had now reached its tenth year, and the marks of an impaired state of intellect, which had begun to shew themselves at four, had in no measure diminished, but, on the contrary, increased. The child could not recognize its parents, brothers, or sisters, and if any toys were given to it, they would be immediately destroyed. She would sit for a considerable time in a corner of the room, with her elbows resting on her knees, and her fingers in her ears, with her eyes closed, and the saliva flowing from her half-open mouth; at other times, she was very restless, and, occasionally, very noisy and obstreperous, seizing any thing she could lay her hands on, and throwing it out of the window; her taste was, also, very imperfect, and she would eat what to others was very unpalatable food with the greatest relish. Her speech was so impaired that she could not make herself intelligible, the stools and urine were passed involuntarily, and the things which ordinarily engage the attention of children remained by her unnoticed. Music appeared to interest her a little, and she could distinguish the different sounds; the sleep was as much as is usual, but never continued long at a time. During the years 1820 and 1821, the patient was placed under the care of Dr N—, who took a new view of the case, and considered that there must be some cause which had not yet been discovered. By an attentive examination and observation, he ascertained that the patient was addicted to a disgusting and solitary vice, and this increased afterwards to such a height that she scarcely abstained from it in the presence of the other sex. The opinions which influenced Dr N. in the treatment of the case were principally these—he considered that the practice alluded to very much tended to maintain the state of imbecility of the patient: that the excitement of the mental energy by powerful contra stimulation, would be likely to restrain such a practice, and that the diet should be strictly regulated. Mechanical restraints were used, in order that she might not be able to indulge in such a practice, and, during the day time, an apparatus was contrived, which caused great pain whenever she attempted to skulk away in the corner, as before mentioned: camphor was also given, in small and large doses, for a considerable time, which somewhat diminished her vicious propensity; but, notwithstanding every possible attention, she sought every opportunity of eluding the watchfulness of her keepers. Finding this still to be the case, it was agreed, after consultation with

Professor Rust, that powerful counter-irritation should be employed, and, after the head had been shaved, the actual cautery was applied just over the tuberosity of the occipital bones ; the wound was made about the size of a half-crown. The patient did not complain of pain during the operation, and ate, with great greediness, a biscuit that was given her. The wound was kept open for more than two months, by peals and irritating dressings, and during the early part of July, warm baths and cold affusions were repeatedly and alternately used. Under this mode of treatment, a considerable improvement took place, and the disposition to her former habits sensibly diminished. She began to give some signs of returning intellect, and it was remarked, that when punished she shed tears, which she had never before done ; she began, also, to distinguish objects, and to understand their several qualities. Thus she continued for some time, but her former propensities returned, and those as violent as before. Warm baths, nauseating and emetic medicines, with other measures, to lessen the force of the circulating system were employed, without producing any decided effect. The most prominent symptoms continued to be the 'desiderium impurum' before-mentioned, and thus the case remained up to the commencement of June, 1822.

After having consulted all the authorities on this subject, it was found that the French had represented the extirpation of the clitoris to be the most effectual remedy, and one totally devoid of danger. The operation was performed on the 20th of June, by Professor Gräfe, with great ease and celerity, by means of a scissors ; the hæmorrhage was very slight, and was readily suppressed by washing the part with cold water. The result of the operation was regarded with the greatest anxiety, and it was, therefore, with great pleasure that it appeared to be so favourable. The patient gave proofs of an increase of mental power ; in the month of July, she learned to write, or rather, commenced to learn writing, and began to express herself correctly ; but when she could not make herself thoroughly understood, she endeavoured to illustrate her meaning by a graphic *repräsentation*. In September following, some unpleasant symptoms again made their appearance, for which a blister was applied to the back ; this was kept open for some time, and she soon got well. In October, a slight disposition to her former propensity manifested itself, on which account the place on which the blister had been before applied was anointed with tartar emetic ointment, which soon caused it to disappear. From the time named to the present, the patient has been gradually improving, mentally and corporeally, and,

up to the time when this account was closed, had not manifested the slightest inclination to her former vices. She has learned to read and write, and pays the greatest attention to what her parents and others may say, and she is, to use the words of the narrator of the case, altogether 'a new creature.'

—*Medico-Chirurg. Review.*

*The Copenhagen Needle Patient.**—In 1822, Professor Hecholdt published an account of this very extraordinary case, in a pamphlet entitled 'Observatio de Affectibus Morbosis Virginis Haviensis, cui plurimæ acus e Variis Corporis partibus excisæ et extractæ sunt.' The number of needles extracted up to the time of the appearance of Dr H's book was 295, since which period, one hundred and five more have been removed. It was for the purpose of communicating this additional information, and likewise for the purpose of making the case more generally known, that Dr OTTO sent the present version of the case to the Journal above named. Dr OTTO observes, that he hopes that the circumstantial manner in which the case is given will remove every doubt from the most sceptical, but, that if any further corroboration be necessary, he can appeal to thirty medical practitioners at Copenhagen, who have seen the patient at different periods of the complaint, and she may at the present moment be seen by every one, at Frederick's Hospital, in that place.

Rachel Hertz had lived in the enjoyment of good health up to her fourteenth year ; she was then of a fair complexion, and rather of the sanguineous temperament. In August 1807, she was seized with a violent attack of colic, which induced her to apply to Professor Hecholdt, and this was the first acquaintance which the Professor had with the case. From that time to March 1808 she experienced frequent attacks of erysipelas and fever, which left her in a very debilitated state. Many symptoms of an hysterical character showed themselves, but which the ordinary remedies failed to remove. From March to May 1809, a period of fourteen months, she suffered in this way from repeated and violent hysterical attacks, accompanied with, or rather followed by, fainting, which sometimes continued so long, that people considered her dead. Occasionally she was attacked with epileptic fits, at other times with drowsiness and hiccough, and sometimes with delirium. During the paroxysms of her madness, she delivered, with a loud voice and correct

* *History of a Patient from whom four hundred needles were extracted.* From Hecker's Litterarische Annalen der Gesammten Heilkunde, July, 1825.

enunciation, long passages from the works of Göethe, Schiller, Shakspeare, and Othlenschlager, just as accurately as any sane person could do, and although she kept her eyes closed, she accompanied the declamation with suitable gesticulations. The delirium continued to increase until it assumed a very alarming height; she gnashed her teeth, kicked about, and fought with whatever came in her reach, and disturbed with her ravings, not only her own household, but the whole neighbourhood. The patient was next the subject of violent attack of hæmatemesis, which returned, in a greater or less degree, for several months, notwithstanding the employment of the usual remedies. In January 1809, she complained of severe pain in the lower part of the abdomen, about the sigmoid flexure of the colon, attended with obstinate constipation and severe ischuria. It was discovered, by an examination of the rectum, that a contraction existed there, and the accumulation of the feculent matter above the constricted part was supposed to explain the production of the ischury. The bladder could not be emptied without the use of the catheter or bougie, the introduction of which was exceedingly difficult. Purgatives of various kinds, injections without number, the aromatic hip bath, fomentations of the abdomen, and repeated cold affusions were used without success, as regarded the ischury, although the constipation, and the major part of the hysterical symptoms disappeared. For two years, the daily introduction of the catheter was necessary. In March 1809, the state of the patient was somewhat improved; she was able to rest better at night, and her behaviour during the day was more tranquil. This did not long continue; the tranquillity soon degenerated into stupor, which became daily more profound. At the middle of the day, she remained as if dead, without sense or motion, with the respiration so slow and feeble that it could with difficulty be detected. For about an hour after noon, she plunged from this state of stupor suddenly into a raving madness, attended with dreadfully severe convulsions; a similar paroxysm made its appearance at night. She took nothing to eat or drink for a whole week, in which time the bowels were only relieved once, and then without her knowledge.

In May, 1809, Professor Collison was consulted, who, during the lethargic state of the patient, recommended snuff to be pushed up her nostrils, the effect of which was so favourable that, without sneezing, she soon came to her senses. She complained of nothing during that day, and the snuff frequently produced equally good effects, for a time only. The delirium continued from May 1809, to December 1810, with little variation of importance, and then gradually subsided. At the close of

November, 1810, the patient sunk into a state of great debility, and remained for eight days as if dead, the extremities were cold, the countenance cadaverous and the respiration slow and very feeble; when she emerged from this state, a slight fever succeeded, and it was observed that she was incapable of moving her right side. Here is a seeming inconsistency in the narration of the case; for we are told that, for the next two years, she enjoyed good health. In April, 1813, she had the measles, which disappeared in the usual time. In July, an intermittent fever made its appearance, and, in August, the old complaint of *hæmatemesis* returned. All these misfortunes were removed, and this walking hospital was once more permitted to be purified; for it is stated that, from the end of November to June, 1815, she remained well. Nothing particular occurred from that time to May 1816, except the formation of a carbuncle in the thigh, but she was then seized with violent pains in the left hypochondriac region, with vomiting of blood, from which she again recovered, and remained free from any particular complaint until January 1819, when severe colic pains made their appearance, with fever, vomiting of blood, and purging of black *faecal* matter, from which it was considered impossible that she could recover—but recover she did. On examination of the abdomen, a large tumour was found, having three distinct elevations just below the umbilicus. To this tumour, emollient cataplasms were applied, without producing much benefit, and the worn out and desperate condition of the patient induced Professor Hecholdt to lay open the tumour by a deep incision. It was expected that a copious discharge of pus would follow, but no pus came, and the bleeding was very slight. When the wound was examined with a probe, a curious sensation was communicated to the hand, just as if a metallic body had been thrust against the probe; this was repeated, a forceps was introduced; the substance was laid hold of, and, to his great astonishment, out came *a needle*. The extraction of this needle produced some alleviation of the sufferings of the patient, but it was of very short duration; great pain with vomiting of blood returned, another tumour appeared in the left lumbar region, the touching of which caused great uneasiness. On the 15th of February, an incision was made into it, and another black oxydized needle drawn out. It would be tedious and uninteresting to describe the situation and appearance of every subsequent tumour; suffice it to say that, from the 12th of February 1819, to the 10th of August 1820, a period of eighteen months, severe pains, followed by tumours, were felt in various parts of the body, from which *two-hundred and ninety-five needles* were extracted, *viz.*—

From the left breast, 22—from the right breast, 14—from the epigastric region, 41—from the left hypochondriac region, 19—from the right hypochondriac region, 20—from the umbilicus, 31—from the left lumbar region, 39—from the right lumbar region, 17—from the hypogastric region, 14—from the right iliac region, 23—from the left iliac region, 27—from the left thigh, 3—from the right shoulder, 23—between the shoulders, 1—from under the left shoulder, 1—total 295.

Some of them were broken, some were without points, some were small, others large. They made their appearance at considerable intervals; sometimes one showed itself every day, then for a week no more could be detected, and, occasionally, a month intervened from the extraction of one to the extraction of another. The patient, during the greater part of this time, was so weak as to be obliged to keep her bed, and she said that she did not feel any pain until the needles approached the surface of the body. From August, 1820, to the 8th of March, 1821, no more needles had made their appearance, and it was not until after the appearance of Professor Hecholdt's account of the case had been published in 1822, that any more were extracted. This part of the history is continued by Dr Otto, who goes on to say, that a large tumour formed in the right axilla, from which, between the 26th of May and the 10th of July, 1822, no less than *one hundred needles* were taken out! The patient for some time after was the subject of a diabetes, which again threatened her life, but from which, as from her former desperate attacks, she ultimately recovered. From the 1st of July, 1822, to the 10th of December, 1823, five needles were at different times extracted, making the total number of *FOUR HUNDRED !!* The patient has amused herself during her convalescence by learning Latin, and writing a journal of her own case. She is at present living at Frederick's hospital, at Copenhagen, and enjoys good health.—*Med. Ch. Rev.*

Sulphate of Quinine. This invaluable medicine is daily extending in reputation, and will, we are convinced, soon become one of the most important in the Pharmacopœia. The great draw-back is its excessive price, and therefore we are rejoiced to find announced in one of the foreign Journals, a mode of preparing the quinine and its sulphate which will effect a great reduction of expense. M. Guerette, chief apothecary to the French forces, has discovered that, from bark, after it has yielded the infusion, decoction, and watery extract, almost as much quinine and sulphate of quinine may be obtained, as from bark that has *not* yielded the above officinal preparations. He was

led to this discovery by observing that from the aqueous extracts of cinchona, little or no quinine could be obtained ; hence it was evident that this valuable substance was left behind in the refuse. It is, indeed, extraordinary that chemists did not see into this before now, knowing as they did, that it required the strongest alcoholic menstrua to extract the quinine from the bark.

A commission has been ordered to examine M. Guerette's memoir, and repeat his experiments, and their report is confirmatory of his discovery. The formula is not yet published by M. Guerette ; but we should suppose it cannot differ materially from that employed in obtaining quinine in the common way from unreduced cinchona.

The effect of the discovery on the price of the medicine will soon, we hope, be manifested both on the Continent and in this country.—*Ibid.*

Physiological Anomaly.—Extract of a Letter, from Dr ELBERT CURTIS, to Dr JOHN H. CLARK.—On the 14th inst. I was notified that a little girl, in Caroline, whom I had seen two or three times, was dead, and as I had expressed a wish to examine her after death, permission was granted, and a message sent for me to come immediately and proceed.

I must digress a little to relate some of the symptoms before death. When she was brought to me, I thought a general chronic or sub-acute inflammation had taken place, affecting the whole viscera of the abdomen ; and ordered her to be treated with gentle purgatives and hydragogues, not expecting to cure her. Her appearance was like one that had passed the age of puberty ; her features, voice, size of the abdomen, and pudenda, all appeared like those of a grown person, and one that was in a pregnant state, though she was only three years, nine months, and ten days old, when she died. I thought there must be some particular derangement of the uterus, to cause such appearances, and visited her from curiosity, and to learn the effects of the remedies mentioned above. They had but little effect.—When she was born, there was some appearance of hair about the mons veneris, with some unnatural enlargement of the labia pudendi.—There was no other unusual appearance in the child, until about a year since, when her parents noticed an enlargement of the abdomen, and thought she was troubled with worms, as she had turns of pain ; she was treated accordingly, without relief. Her abdomen continued to grow, without any soreness, but occasionally a pain like labour pains, surprising all who saw her. She looked

majestic when standing, and when she lay down would lie on her face and abdomen. There was to be felt a hard tumor in the left hypochondrium, also a hardness above the pubes, but no soreness; some little fluctuation in the right side. She had a sudden pain on the morning of the 14th inst. and died in about three minutes;—so say the parents and witnesses.

To proceed,—I went on the morning of the 15th inst., Dr Wilder with me, and met Drs Mead and Perry. We made an incision from the bottom of the sternum to the umbilicus, and from thence each way to the spine of the ilium. When the left section was made, a large tumor protruded, that filled the whole left side of the abdomen, crowding the diaphragm, stomach and spleen upwards, and the intestines into the right side. On examination, it proved to be the womb, enlarged by something of an irregular shape, to about twelve inches in length, and from three to five in width, weighing (including the womb and one kidney that so firmly adhered to it as to come with it) four pounds and ten ounces. It adhered to the diaphragm, spine, &c. down to the psoas muscle, quite firmly. No other unnatural appearance, except the liver a little enlarged, and indurated. On opening the womb, we found the remains of a foetus, such as brain, lungs, heart, diaphragm, liver, sacrum, &c., to satisfy us there had been a living growth of a child, or something that left similar appearances. It appeared to be passing into a state of putrefaction, though the heart was entire, with its auricles, ventricles, foramen ovale, &c., as was the diaphragm, and the lining membranes of the brain and lungs; the sacrum quite natural; though no appearance of bone, yet something that we supposed a secretion of bony matter, not ossified; no trace of features left, if there had ever been any, but stringy substances, of different colours, for which we could find no name; but we were satisfied that foetal circulation must have been performed in the ordinary way, and not a doubt remains but that it was the principal, if not entire form of a human foetus, born with her, to all appearances.

Now if you or any one else can account for this sport of nature, I hope you will be able to answer, from sound reasoning, such inquiries as naturally arise. If you wish farther information on any point, let me know, and I can satisfy you, for I took accurate minutes at the time; and the above, as far as you have them, may be relied on as facts—it is what I saw and felt, and can prove by four physicians and a number of other witnesses.

Danby, Tompkins Co. N. Y. Nov. 23, 1825. [Bost. Med. Int.

REVIEW.

ART. I.—*Medical Researches on the Effects of Iodine, in Bronchocele, Paralysis, Chorea, Scrophula, Fistula Lachrymalis, Deafness, Dysphagia, White Swelling, and Distortions of the Spine.*
By ALEXANDER MANSON, M.D. Physician to the General Hospital and St Mary's Hospital and Dispensary, Nottingham.
London: Longman & Co. 1825. pp. 452.

IODINE was introduced a short time ago to the notice of the profession as a very useful remedy in some diseases which had been always found very intractable, and which, though not rapidly fatal, were peculiarly distressing, and ultimately destroyed life. Our readers are doubtless acquainted with the works of Coindet and Brera, in which the merits of this medicine are very fully and fairly discussed. They found it singularly useful in chronic diseases of the glandular texture, and some very curious effects were noticed on glands which were not diseased. We refer to the diminution of the healthy mammae which is said to have occurred under the use of iodine in diseases of other glands. It was in bronchocele that iodine seems to have been first employed with very obvious advantage. It was found to be the active principle in burnt sponge, long known for its specific effects in this disease. It has advantages over sponge. Its quantity may be more accurately adapted to the case. Its effects in different doses can be more certainly calculated on, and it is active in a much smaller quantity.

What will be the fate of this new remedy we will not venture to predict. In bronchocele its efficacy may perhaps be considered established. But like all other remedies which are confessedly useful in some one disease, its use has been extended to many others, and like other novel remedies, it is alleged to be equally beneficial or nearly so in them all. This simple fact in its history may be fatal to it. Panaceas are becoming shorter and shorter lived, as the profession advances. They gradually destroy each other; for an universal remedy necessarily precludes the want of any other; and the fact of a new one gives the lie to all its predecessors.

There is another fact in the history of iodine which deserves notice. It has been brought and kept thus far in use, by regular and very respectable men of the profession. These are not the best agents for the management of such an affair. Such men feel no exclusive interest in the means they employ. They give it to the public unfettered by any other conditions than the wise cautions which their observation of its effects authorize and demand. It is distinction enough for such men to have been the first to discover and use, a valuable remedy in disease. The next process with them has been to publish their whole experience, and to invite and solicit their brethren to put to the test of a wider, and, it may be, a less partial observation, what has been with them found useful. The new remedy may thus at once have to encounter prejudice, and all the obstacles which firmly established views may oppose to it.

Physicians have been equally, nay more, jealous of remedies which have been less regularly introduced to notice, than those which have been discovered by their own brethren. Their motives have not always been understood or faithfully reported. Their jealousy has been called selfish rather than professional. They have been charged with fears for their individual interest, instead of an honourable regard for their own proper calling. Now it is well for the public as well as the profession that this has been their course. Let them pursue the opposite one, let them for instance find their remedies among the uneducated sons of the forest, or the scarcely more enlightened pretenders of the civilized classes, and the moral and intellectual character of medicine are at once subverted. Of what value is a fine mind, and its most dignified and worthy uses, in a calling which commits its best interests, by its own connivance at obvious imposture, or has them committed by public appeals to the utility of ignorance. The remedy for the evil, however, in this as in other cases exists in the very evil itself. Time is fatal to novelty. It is so by itself in many cases. In the one considered it is so by its new and brighter revelations. It is an unsafe elevation to which new remedies so frequently attain. The first step of a newer one is always above them. We might find in this last consideration, if other and better were not at hand, an argument for professional incredulity. As life is too short for any individual to discover for himself every thing relating to any profession, so have not medical men time, to follow the track of extra professional discovery. Hence we find that let the individual be of what power or influence he may, who engages in this service, he will always be in the rear of the actual progress of his pro-

fession, will lose his rank in that profession, and ultimately be forgotten by the public. A physician is not a good servant in this employ. For a little while he will be listened to and obeyed. But there is after all some jealousy of him still with the public ; he is a physician, let him say what he will. Faith will at length begin to waver, and where the faith is weak, how small will be the miracle.

We have made these remarks because we would feel and encourage an interest in our profession beyond its merely pecuniary relations. It is, or should be the intellectual occupation of its professors, and for it to be worthy of the mind, let its character be elevated by us, or we shall certainly be degraded by it. If we will not give it the protection of an elevated zeal, an ardent purpose to advance its highest interests, it will not protect us, nor shall we deserve its protection. True learning holds no terms with ignorance. If in the great chapter of accidents something really valuable is obtained from this source, it comes at length to be thrown into the common mass, and is made the property of all. The public has decided this point for physicians as well as for its other servants. It may be taken, for the moment, by what is new ; but it takes no quack, no matter in what calling, under its lasting patronage. It acknowledges the smallest real good though derived from the least important of its members. But the fact of his being the least important, is not altered by his benefaction ; or at least it is made no good reason for his sudden and indefinite elevation or influence.

It should not be matter of surprise that novel means, however introduced into medicine should have the power with the public they are acknowledged to have. Physicians do not wholly escape this influence. We have been struck with the truth of this remark in the instance of the present author on iodine. As it seems to us he always gives more credit to this remedy than it deserves. We say this without questioning the power of iodine. But in all the author's cases a great deal more is done, than merely giving a few drops of the medicine a certain number of times a day. The majority of his patients are poor. Their diseases not unfrequently have been produced by bad air, bad food, and sedentary habits. No change has taken place in these before, and they have lived and laboured until the pressure of disease has driven them to seek relief. Many of them have entered the hospital. Here a great change has at once been made in all their habits. Care has been taken to remove the obvious causes which have continued and increased their diseases, new and salutary causes have been

brought to act upon them. Among these, comparative cleanliness, better food, and better air, have had a principal place. Care has been paid to the state of the stomach and bowels, and we all know how salutary this always proves to individuals who have been habitually careless about them. We may safely say, for we have seen enough to support the remark, that these means alone have in many, very many cases, at once altered the whole state of patients, and not only prepared them for cure under almost any remedy, however simple, but has also not unfrequently made them instances of the astonishing powers of that remedy. We have seen this to happen most frequently in hospital practice, and have ascribed it to the fact, that the patients of such charities are most commonly of those who have almost always lived irregularly, have had no sufficient attention paid them when sick, and are at once subjected to a precise discipline upon entering such places.

Something of the same kind now described, occurs in other classes of patients when treated by men out of the profession, and especially with some new remedy. A great change is at once made in their habits. All the means they may be using, and have been using for months or years are at once withdrawn. The diet is at once altered. If the patient has been living low, a better diet is directly ordered. If he has indulged in stimulants to get strength, these are denied, for the new remedy is the most strengthening of all things. If he has been accustomed to opium, and could never sleep without it, he is told the new means will certainly give him quiet nights. All this is believed. He is to sleep by the remedy, and not to question whether he will or no. The mind is affected, deeply affected, and comes in aid of every thing else. He does sleep, and without opium. His stomach gets tone, and his bowels recover their natural action, because neither of them are longer paralyzed by a narcotic poison. The patient gets well, and the rain water, or whatsoever water he may have used, has cured him.

The means we have alluded to are most successful in chronic diseases of a certain character—in diseases of long standing with *fixed* symptoms, and in which functional disturbance principally exists. In these cases disease has become a habit, a mode of life of the individual, and though very inconvenient, and sometimes very distressing, may be borne for many years. These diseases very often cure themselves. The patient comes at last to think that it is time to make some little exertion. He walks abroad a few steps, or gets into a very easy carriage, and rides a little. He feels better, and perseverance at last works

a cure. We have distinctly in recollection some of these cases, and remember one female particularly who was in herself a few years since, a whole system of nosology, but is now as hale and hearty as if she had never been ill for a moment.

We have admitted a good deal in these remarks, but we do not think we have yielded too much. We abhor professional quackery as well as all its other forms. We do believe that disease will do well in some cases in spite of the physician, and not unfrequently without him. But we at the same time believe that a wise and careful observer of nature, will be always the best judge of its phenomena; and in the case of disease be the best fitted to understand and relieve it.

We mean to offer our readers a notice of Dr Manson's volume, not so much on account of its novelties, and its cures, as from its containing a fuller account of iodine than any other volume we have met with. Dr M. has used the remedy very extensively, and ascribes to it much power over disease. In some diseases he was led accidentally to employ it. Patients laboring under two or more complaints, were found by its use to get well of them all. It was natural when found alone to recommend the same means, and it was done with equal success. It is this fact in this history of iodine which has concurred with another circumstance already stated to diminish our confidence in the doctrine that it possesses the very peculiar powers in controlling disease ascribed to it. It seems by this doctrine to have done a great deal too much. Due allowance is not made for the other means used. These last to be sure have not the imposing form of regular prescriptions, nor are they varied with all the precision that attaches to the use of a new and powerful substance. Still we believe them, viz. the whole regimen of Dr Manson, to have had a positive and very important agency in his cures. In many of the author's cases much more was done, than merely the daily use of iodine, and strict attention to diet, &c. implies. For instance, in *fistula lachrymalis* which it is stated was cured by iodine, leeches are applied to the lids, wine of opium dropped into the eye;—in one case at least a mercurial ointment is rubbed on the tarsi; calomel is given regularly at night; and active cathartics in the morning, &c. &c. These means we know are useful and curative in inflammations of the eyes or its appendages, and though cure occurred while iodine is used along with them, we cannot ascribe the cure wholly to that article.

The reputation of doing too much has been frequently fatal to the character of medicines. Sometimes it has even hurt the reputation of the physician. We recollect perfectly well how

unfortunate too much reputation was for a remedy not very long since employed in London for cancer. It was an admirable remedy for many indolent and seemingly dangerous tumours. We refer to *pressure* as practised by Mr Young, in London, for these diseases. So much was thought of this remedy, at least out of the profession, that an Institution was founded in which all might enjoy this wonderful means of cure. The late Mr Whitbread, was one of its patrons, and the nobles and gentry were its warm friends. But the bubble soon burst. The remedy was burdened, overlaid, and smothered by its own character. The city fell by its own weight. What is most in these downfalls is, that in the failure to do every thing, the real utility of a remedy comes to be questioned, and its use at last forgotten. This has been the case with Mr Young's remedy.

From these remarks we would not have it in any measure inferred that we discredit the statement of our author, or would intimate that iodine is not a very useful auxiliary in the treatment of the cases he has so satisfactorily recorded. We have read his work carefully and with much satisfaction. It is written with simplicity, and remarkably free from ostentatious display. It furnishes good evidence of its truth. It is for the most part a published record of daily observation of disease, and of the effects of remedies. We know no better way of giving our readers an accurate notion of the work than by extracting some of its cases. We shall proceed to do this without alteration and but slight abridgement. We would only premise that iodine has been used in a great many cases of each of the diseases in which it has been employed, and the bulk of the work is taken up with details of the most striking. Tabular views drawn up with great precision are furnished at the end of each particular disease, where all the cases are not published at length. Our limits will not allow us to make any extracts from the valuable remarks of the author on particular cases.

Bronchocele. CASE X.

‘ Ann Robinson, æt. 14. July 10, 1821, Kimberley, near Nottingham. Out-patient of the Hospital. When she was two years of age, the Thyroid gland began to enlarge, and has now acquired a size equal to the neck. The right lobe is much larger than the left; they are both very hard. Moderate pressure on the tumour gives no uneasiness. Hoarse, and wheezes since the tumour became large, which is now six or seven years. Has never menstruated. Her mother laboured under Bronchocele, and she informs me, died of a decline. General health good. Capiat Magnes. Sulphat. 3ij.

omni mane et Tinct. Iodini gutt. xv. ter in die ex aquæ cyatho vi-nario.

‘July 20. The tumour is half an inch smaller, and considerably softer. Bowels open by the Salts. wheezes less, and the hoarseness is not so great in degree. For three days has taken 18 drops in an ounce of water, thrice a day. Says the liquid burns her throat. Capiat gutt. xx. Tæ. Iodini ter in die. Contr. Magnes. Sulphas nisi nimis fusa est alvus.

‘August 24. The neck and tumour measure two inches less. The gland appears now in distinct lobes. Has taken the drops regularly; says that they make her weak. Bowels regular. Contr. remed.

‘Sept. 7. There are two hard lumps which have not subsided much since last report; the other parts of the tumour are soft. Drops make her sick. T. clean. Contr. remed.

‘Sept. 28. One of the lumps has nearly disappeared, the other is considerably smaller and softer. Capt. Tæ. Iodini gutt. xxv. ter in die. Contr. Magnes. Sulphas.

‘Oct. 19. The drops make her sick. The Bronchocele is quite dissipated. I find that the nucleus of the tumour, which remained at the last report, is an enlarged lymphatic gland, and there are three or four lymphatic glands near it, that are slightly enlarged, but none of them disfigure the neck, or are offensive to the eye, except the first. Patient wishes to continue the drops for some time longer. Contr. T. Iodini and Magnes. Sulph. p. r. n. Did not return again to the Hospital. Discharged cured. pp. 34, 35.

“Nottingham, 1st May, 1824.

“Millicent Richards, æt. 67. Married and has a family.—Was born and brought up at Ilkeston, in Derbyshire, and has always resided there. For thirty-five years has laboured under Bronchocele—at first it increased very slowly, but for the last ten or fifteen years it has increased very much, and is now of an enormous size and globular form, slightly flattened.—The surface is smooth and uniform, skin tense, and of nearly the same colour as the adjoining skin.—The Goitre has escaped from its natural situation in the neck, and the most depending part of it now reaches as low as the ensiform cartilage, and the upper part of it is on a level with the upper part of the sternum, it is attached to the neck by a stem about three inches long, which measures twenty-two inches in circumference. The greatest circumference of the Goitre is longitudinally, as to the body, and measures exactly 29 inches; and the shortest circumference, taken at right angles to the former, or in the transverse direction of the body, measures exactly twenty seven inches and three-quarters, so that the tumour is nearly globular, or within one inch and a quarter of being so, and rests on the breast, suspended to the neck by the stem. To give some idea of the size of the tumour, compared with the head, I measured the latter, in a line horizontal to the upper part of the orbits, and found the head to

measure exactly 22 inches and a half in circumference. Her general health is pretty good.

‘The poor woman is anxious to have the tumour reduced, and being willing to try what Iodine can accomplish in this case, I have prescribed the following medicines:—

‘Capiat Pil Cambogæ C. gr. x. omni nocte h. s. R. Tæ. Iodini 3 ss. Capiat gutt. xij. ter in die ex aqua.—Sumat Magnesiæ Sulphatis, 3 ii. mane p. r. n.

‘R. Linim. Sapon. C. 3 ij. Tincturæ Iodini, 3 ij. Misce fiat Linimentum quo fricetur tumor omni nocte hora somni.

‘May 22. Has employed the medicines exactly as directed. The patient observes, that the swelling must be smaller, as the skin is now quite loose, and she takes it up in folds. On re-measuring the Bronchocele, I find the longest circumference rather less than twenty-eight inches, and the shortest 26 inches and five-eighths, so that the tumour has diminished an inch or upwards, in all directions, in the course of three weeks. Medicines agree very well. Bowels are costive. Makes urine with difficulty, owing, I believe, to the constipated state of the body. The aperient pills do not move her bowels, and she has neglected to take the Epsom Salts.

‘R. Contr. Pilul. Cambogiæ C. Sumat Magnes. Sulphatis, ij. vel. iiij. mane p. r. n. Capiat Tæ. Iodini gutt. xv. ter in die.—Fricetur tumor Linimento Iodini omni nocte hora somni. ☞

‘I have directed her to make a bag to lace upon the tumour, so as gently to compress it, supporting the compressing bag and tumour by a kind of waistcoat. If my directions are properly carried into effect, the pressure on the tumour will, I have no doubt, assist in promoting its absorption.

‘Highly as I estimate the powers of Iodine, in the cure of Bronchocele and of other diseases, I must acknowledge that in this *prodigious* enlargement of the Thyroid gland, its remedial powers have far exceeded what I could reasonably expect, in the short time it has been employed.’’ pp. 69—71.

Paralysis Paraplegia. CASE I.

‘James Watterton, æt. 19. Was admitted an in-patient of the General Hospital, near Nottingham, on the 27th of March, 1821. Has been ailing since October, 1819. Says that he was first attacked with pain in the bowels, and griping. After some time the pain left the bowels, and the lower extremities became swelled and painful. His mother put his feet and legs in warm water, and after this, his neck became stiff and painful, and he soon began to be troubled with pains shooting from the neck into the left side of the head (this took place, he thinks, about nine months ago;) after the pain had continued for three months, it left him, and has not since returned. Almost immediately on the pain leaving him he lost the power of moving the left arm, and in a short time after the lower

extremity of the same side became paralytic. Sometime after this, he recovered the use of the left arm in a considerable degree, the lower extremity of the same side remaining paralytic, and the right half of the body, as high as the neck, was seized instantaneously with complete palsy. He has continued ever since in this wretched state, and has been getting worse, he thinks, instead of better, and passes his stools and urine involuntarily. Is pale, and of a slender spare habit. He lies in bed on his back, and is completely palsied on both sides, from the neck downwards, with the exception of the left upper extremity, over which he still has so much power as to be able to raise his hand as high as his chin, but he cannot grasp any thing with that hand. The sense of feeling is very much impaired, but not quite obliterated in the paralytic parts. There is no distortion of the face, and the patient can articulate very well. Is troubled with twitchings in the lower extremities.

‘ March 28. Complains of head-ache. Bowels not moved for two days. Sumat Mist. Purgantis 3 iss quam primum.

‘ March 29. Remains quite helpless. Bowels moved yesterday by the purging mixture, feels better since, and has had a good night. Skin cool. Pulse small and weak. Bowels open. Capiat Mist. Purg. 3 iss. cras primo mane. Applicetur Emp. Lyttæ parti cervicis posteriori, h. s.

‘ April 2. Blister acted pretty well: for three days the blistered part has been dressed with an ointment having a proportion of blistering plaster mixed with it, and the discharge is copious. Thinks he has rather more command over the left arm, but the other limbs are not better in any degree. Appetite moderate. It appears that the patient had a bloody purulent discharge from both ears, about two years ago, unattended with pain; the left ear continues to discharge a purulent looking matter; the right has not discharged any thing for some time. Contr. Mist. Purgans.

‘ April 4. Continues nearly in the same state. The incontinence of urine has existed, without any improvement, since both the lower extremities became paralytic. Bowels are kept regular by the purging mixture. Pulse 84, and soft. Skin cool.

‘ Repetatur Mistura Purgans pro re nata Habeat Tincturæ Iodini gutt. x. ter in die ex cyatho vinario aquæ.

‘ April 6. Begins to move the right arm a little, and feels better.

‘ Continuetur Mist. Purg. p. r. n. Sumat Tæ. Iodini gutt. xv. ter in die ex aqua.

‘ April 9. Blister almost healed—to be dressed with Issue Ointment. Can raise the right hand nearly to the head. The power of moving the lower limbs has not improved, but the twitchings have nearly ceased, which shews some increase of muscular power. Pulse 80, and of better strength. When placed in the sitting posture in bed, can support himself better than when admitted. Bowels regular.

‘ Repetatur Mist. Purg. p. r. n. Habeat Tincturæ Iodini gutt. xx. ter in die ex aqua.

‘ April 10. The blister has healed, and the Issue Ointment was not re-applied. It may be omitted. This morning first recovered the use of the lower extremities, so as to be able to move them a little, and can bend the left leg a little upon the thigh. Has more power over the left arm, and moves it about with greater freedom. Feels stronger and better. Can hold his urine now so as not to wet the bed.

‘ *Continuentur remedia.*

‘ April 14. Continues to improve. On the night of the 10th instant, began to have a considerable degree of pain in the toes of the left foot, shooting towards the heel. The left lower extremity is often spasmodically drawn up towards the body, and the foot is now so exquisitely sensible, that the friction of the toes against the bed clothes is quite insupportable; so that I find him with the foot, and part of the leg, quite uncovered. The pain has broken his rest during the night, since the 10th instant. Can now raise the left hand above his head, and move it about in all directions. Has not made the same degree of improvement on the right side of the body. Takes the purging mixture every second day. Pulse 84, and rather firmer.

‘ *Sumat Mist. Purgantis, 3 iss. alternis matutinis. Capiat Tæ. Iodini gutt. xxv. ter in die.*’ pp. 76—80.

‘ June 2. Continues gradually to recover the use of all the extremities: the arms he can move in all directions; but complains of want of strength in the right one. The right knee is stiff, but he can bend the leg to nearly a right angle with the thigh. The sense of feeling, also, continues gradually to improve. Bowels not moved, unless by physic.

‘ *Capiat Mist. Purg. 3 iss. omni mane et Tæ. Iodini gutt. xxx. ter in die. Omittatur Linimentum.*

‘ June 4. There is a little discharge from the left ear. Is gradually recovering.

‘ *Continuentur remedia.*

‘ June 9. Can walk without a stick, or any one to prevent him from falling. He is gradually recovering the power of motion, and sense of feeling. Drops agree. Appetite good, and is now allowed full diet. A few days ago, I first observed a considerable degree of fulness in the upper and left side of the neck: the part sometimes aches for the space of a minute. Pulse 72, and soft.

‘ *Continuentur Mist. Purg. et Tinct. Iodini.*

‘ June 13. Wrote his name with a pencil on the 11th instant. Had the misfortune to fall yesterday and hurt the right arm so much, that he cannot raise his hand to his head, on account of pain. Some head-ache last night, after the fall. Bowels open by the mixture. To use a sling to support the arm.

‘ *Continuentur remedia. Applicentur hirudines tres partibus dolentibus.*

‘ June 18. I found him this morning walking before the Hospital. The leeches relieved the pain in the arm. Complains of stiffness

and pain in the right shoulder joint, on motion. Does not now use a sling for the arm. Continues to recover.

‘Continuentur remedia.

‘June 23. Cannot move the right arm quite so well as before the accident. For the last three days has been purged four or five times each day without taking the Purging Mixture. The medicines were omitted, and he has daily taken fifteen drops of Tincture of Opium to check the diarrhoea.

‘Cras repetantur remedia ut antea.

‘June 25. Bowels regular. Can now walk better with the right than the left lower extremity. The right shoulder joint feels weak since the accident. There is still some swelling and stiffness in the upper and left side of the neck. Has very little discharge from the left ear, and his hearing is not impaired.

‘Capiat T. Iodini gutt. xxx. ter in die et Mist. Purgantem p. r. n.

‘R. Linim. Saponis Camp. 3 ij.

‘Tinct. Opii..... 3 ij.

‘Ol. Terebinthinae Rect. 3 ss.

‘Misce fiat Linimentum quo fricitur humerus affectus mane et hora somni.

‘June 30. Shoulder better. Continues to recover. Complains of being weak in the loins.

‘Continuentur remedia.

‘July 2. Is gradually recovering flesh and strength. Has the complete use of all his limbs, and the sense of feeling is as perfect as ever. Can walk without a stick, but generally uses one. His right shoulder is nearly recovered from the effects of the contusion. Has written his name with pen and ink this morning, the paper is attached to the cover of the journal kept at the Hospital. There is still a little fulness, and at times aching in the left side of the neck. The left ear continues to discharge a serous fluid with whitish flakes in it; but, it is free from any offensive smell. Bowels regular for the last week, without the use of Purging Medicine. Tongue clean. The speck has nearly disappeared, and he now can see better with the left eye than for the last eight years. He complains chiefly of weakness.

‘July 3. Discharged cured.’ pp. 85—88.

Chorea. CASE V.

‘Anne Harrison, æt. 13, lace runner, Sun Hill, admitted an Out-Patient of the General Hospital, on Tuesday the 1st of April, 1823. Her mother informs me, that she continued free from St. Vitus’s Dance since she was discharged the 27th of September last, till about a week since, when she observed “that she was clumsy at her needle,” and three days ago the right arm and leg began to be twitched and moved involuntarily. Cannot articulate well. Bowels open. Stools not observed.

‘ Capiat Mist. Purg. 3 iss. omni mane. Sumat Tæ. Iodini gutt. xv. ter in die ex aqua.

‘ April 4. No change in the symptoms. Has had four or five stools of a light colour, and rather slimy.

‘ Capiat 3 i. Mist. Purg. omni mane. Contr. Tæ. Iodini.

‘ April 11. Can feed herself better than she could a week ago. It is chiefly the right arm and hand that are moved involuntarily. Pulse 84, and of moderate strength.

‘ Capiat Tæ. Iodini gutt. xviii. ter in die. Contr. Mist. Purg.

‘ April 18. Speaks pretty well now. Continues to improve. Has five or six motions of a light brown colour, every day.

‘ Capiat Tæ. Iodini ter in die. Contr. Mist. Purgans.

‘ April 25. Is less troubled with the involuntary motions. Bowels open, and stools natural yesterday; the day before they were dark and offensive.

‘ Contr. remed.

‘ May 2. Articulates very well. The involuntary motions are very slight, and are confined to the right arm and hand. Has been able to work at running lace for the last week. Has five or six stools daily.

‘ The Tincture of Iodine was continued till the 16th of May, and very little of it was given afterwards. The patient remained weak, owing to her being too much purged. A dessert spoonful of the Compound Infusion of Gentian was ordered to be taken three times a day, and the Purging Mixture when necessary. She continued to run lace from five to nine hours daily, and her health and strength were completely restored under the above plan of treatment, on the 12th of September following.’ pp. 204—206.

Scrophula. CASE IV.

‘ Mary Wride, æt. 23, lace mender. Admitted an Out-Patient of the General Hospital the 1st of April, 1823. For eleven years has laboured under swelling of the Cenglobate glands in the neck, at the angle of the jaw, and before the ear, on the left side. The glands have now attained a large size, and occasion a considerable degree of deformity. Some of the tumours begin to be painful. The patient informs me, that she has been under the care of different practitioners, and that the late celebrated Mr. Hey, of Leeds, was consulted about ten years ago, respecting her case, but that she derived no benefit from any of the means employed. Her bowels are generally tardy. Hair and eyes dark, complexion swarthy, upper lip thick, and chapped.

‘ Sumat. ægra Pil. Cambogiæ Comp. gr. x. vel. xv. omni nocte h. s. Capiat. Tæ. Iodini gutt. xx. ter in die ex aqua.

‘ April 18. It requires two pills to keep the body open. She began to take twenty-four drops of the Tincture for a dose, on the 4th inst. The glands are rather smaller and softer. The Tincture warms her throat and stomach, but does not make her sick. Tongue a little furred.

‘ Contr. remed.

' May 9. Has lately had a slight sore throat, from cold, but is now well. All the glands are very much reduced in size, and are less painful. General health better.

‘Contr. remed.

May 23. There is less general swelling, and the glands are more detached and distinct since the tumour has subsided so much. Catamenia regular. Omitted the medicines for three days during the period.

‘Contr. remed.

June 6. The glands are very much reduced in size. The Iodine agrees very well. Says that many persons have told her of her improved looks. Upper lip not so much tumified.

‘Contr. remed.

‘ June 20. Is very much confined to the house, and works late. The tumour continues gradually to subside. The upper lip is very much reduced in thickness. Bowels open by the Pills and Sulphate of Magnesia.

‘Contr. alia.

July 4. The glands have diminished considerably since last report and her general health continues to improve.

‘Contr. remed.

July 18. Has been in the country for fourteen days. The glands have subsided very considerably since last report although she has taken no medicine.

‘Contr. remed.

' Sept. 19. The swellings are so nearly dissipated, that no deformity is occasioned by the tumefaction that remains. Feels in very good health, and menstruates more copiously than she did when admitted. As the patient attends irregularly, now that she is nearly well, I have ordered her a supply of the Medicines to last a fortnight, and have discharged her.—Cured.' p. 243.

Fistula Lachrymalis. CASE V.

Jane Siddall, æt. 35, frame-work knitter, of Nottingham. Was admitted an Out-Patient of the General Hospital, the 7th of October, 1823, for the cure of Dyspepsia, and general debility under which she laboured. Catamenia regular. Bowels generally costive. The following powders were ordered to be taken:—

‘ R. Pulp. Rad. Rhei.----- 31.

Magnes. Sulphatis----- 3 ii.

Carbonatis 3 iss.

Poly. Zingiberis-----91.

‘Tere simul et divide in pulveres vi. Ægra capiat i. omni mane ex aqua tepida.

‘ October 17. Says she is better in every respect, and free from head-ache. The powders are ordered to be continued in the morning, and she is directed to take a table spoonful of the Compound Infusion of Gentian, three times a day.

‘ March 19. The above plan was continued till the present time, except that the purgative was changed, as the powders made her sick after taking them for some time. To-day the right eye-lids are inflamed, and there is a tumour at the inner canthus of the eye, in the site of the lachrymal sac. Perspires much in bed. Medicines agree.

‘ Contr. remed. Applr. hirud. iii. palpebris.

‘ March 26. Eye-lids, and other parts, less painful. The sac has burst.

‘ Contr. remed. Applr. Cataplasm. Emollient. ulceri.

‘ April 17. I did not see the patient again till this day; but the same plan of treatment was followed, and four leeches were applied to the right temple, on the 9th instant. There is still a considerable degree of redness and swelling in the site of the lachrymal sac; the opening in the abscess has closed, and when pressure is made upon the sac, there is a purulent looking matter discharged through the puncta into the eye, without any passing by the lachrymal duct into the nose.

‘ Omittr. remed. Sumat Ægra Liquoris Iodini gutt. x. ter in die ex cyatho parvo aquæ. Capiat Magnesiæ Sulphatis 3ii. mane p. r. n.

‘ April 23. The redness and swelling are much gone. Says that the drops have done her a great deal of good. Bowels open by the Salts. The cicatrix has burst open again, and there is some purulent discharge from the sac.

‘ Curetur ulcus Cerato Cetacei. Capiat Liq. Iodini gutt. xii. ter in die. Contr. Magnesiæ Sulphas. p. r. n.

‘ April 30. Parts less swelled. No pain. Drops agree. Bowels open.

‘ Contr. remed.

‘ May 7. There is less purulent discharge into the eye when the sac is pressed; the ulcer has healed, and the skin is less red.

‘ Contr. remed.

‘ May 21. The cicatrix has not again given way, skin slightly red, but the swelling is entirely gone. When the sac is pressed there is a little purulent looking matter discharged into the eye, but the greater part of the tears and secretions from the lachrymal passages are now discharged into the right nostril. A Saturnine Lotion is directed to be applied to the parts lately swelled and inflamed.

‘ Contr. remed.

‘ June 4. Continues to improve.

‘ Contr. remed.

‘ July 9. The patient has attended irregularly since she has been nearly well. The edges of the eyelids are a little raw, but the

lachrymal passages are quite clear.—Discharged cured.' pp. 285—288.

CASE II.

Deafness.—‘ David Young, æt. 18, a dyer, St. James’ Street, Nottingham, Was admitted an Out-Patient of the General Hospital, the 5th of November, 1822. Lost the sense of hearing in the right ear when a child, about a year old. A sanguous discharge preceded the loss of hearing, and still continues. For the last three months has laboured under a very considerable degree of deafness in the left ear, which discharges a very offensive thin matter. Countenance vacant, and he looks pale, and out of health. The patient also labours under a slight degree of Bronchœcele, and is of a strumous constitution. The pupil of the left eye is considerably more dilated than the right; at times he experiences a pain darting from the left ear into the head. His bowels are open by Salts, at present, but, in general, they are costive.

‘ Capiat Magnesiæ Sulphatis 3 ii. primo mane si tarda est alvus. Sumat Tæ. Iodini gutt. xv. ter in die ex aqua.

‘ November 22. Says that he hears “a deal better.” The darting pain left him about a week since; syringes the left ear with warm water, by my direction. The left pupil is now very nearly of the same size as the right. The discharge from the right ear has entirely stopped, that from the left is diminished in quantity, and the smell is less offensive. The goitre is both smaller and softer.

‘ Contr. Magnes. Sulph. Capiat Tæ. Iodini gutt. xx. ter in die.

‘ November 29. The discharge from the left ear has stopped. He is not sensible of any improvement in his hearing since the last report. Bowels open.

‘ Contr. remed.

‘ December 13. Says that he now hears as well with the left ear as he has done for the last five or six years; but is entirely deaf in the right ear. There is no discharge of matter from the ears. His general health is much improved, and he has got a more clean and fresh complexion; this is remarked by his mother, as well as his having lost a dull vacant expression of countenance. Has three or four stools daily. Drops agree very well.

‘ Capiat Tæ. Iodini gutt. xv. ter in die. Contr. Magnes. Sulph. p. r. n.

‘ December 20. Has experienced no return of the discharge from either ear. He has recovered the perfect sense of hearing in the left ear, but is completely deaf in the right.—Discharged cured.’ pp. 311—13.

CASE III.

‘ Hannah Elliott, æt. 26. Applied to me the 18th of December, 1822, for the cure of Bronchocele. She also laboured under a considerable degree of deafness, of several years standing, but I

have neglected to note down the length of time, as well as the cause of her deafness, my attention having been principally directed to the cure of the Bronchocele, for which she applied to me, and of which I have a particular account; but I am well acquainted with the degree of deafness under which this patient laboured, as she had lately lived for six months with me as a domestic servant, and I was obliged to part with her owing to the mistakes she daily made from her defect of hearing. Her health was rather delicate, and for the last four or five weeks she had been troubled with acidity at the stomach, and other dyspeptic symptoms. Catamenia regular. Bowels seldom costive. She was directed to take fifteen drops of the Tincture of Iodine, in water, three times a day, and ten grains of the Pilæ, Cambogiaæ Comp. at bed-time, when the bowels were tardy.

The Tincture of Iodine was gradually increased to thirty-five drops, three times a day, by the 17th of February, 1823; and on the 26th of March following, she had recovered her hearing in a perfect degree, and her countenance was much more expressive than it used to be. At this time the neck and goitre measured an inch and a half less than when she applied to me. The Tincture of Iodine was afterwards gradually increased to forty-three drops for a dose, but as they made her sick, and took away her appetite, she took thirty-five drops for a dose, which perfectly agreed with her, and she was completely cured of the Bronchocele, on the 24th of April following, and her general health was also greatly improved.' pp. 314, 315.

There follow 7 cases of dysphagia; 11 of white swelling; 4 of morbus coxarius; and 11 of distortions of the spine, in which iodine was used with other remedies, with marked benefit. We extract 'general abstract' of cases of Bronchocele.

Total number of Cases	-	-	-	-	120
From these deduct four Females twice admitted	-	-	-	-	4
Number of Individual Cases	-	-	-	-	116
Viz.—MALES—	Cured	-	10		
	Ditto much relieved	-	1		
	Ditto discharged for non-attendance	-	1		
	Ditto improving under treatment	-	3—Men, Total 15		
FEMALES—	cured	-	66		
	Ditto much relieved	-	9		
	Ditto without relief	-	2		
	Ditto discharged for non-attendance	-	10		
	Ditto improving under treatment	-	14—Women, Total 101		
Number of Individual Cases as stated above	-	-	-	-	116

There are 25 cases of palsy.

Total Men----- 19

Total Women-- 53 } Being in the proportion of 1 Male to upwards of 2 3-4 Females.

Total Cases---- 72

Others were under treatment or discharged for various reasons.

For the benefit of those who may feel desirous to employ a remedy recommended by so much evidence, we subjoin the Formulae employed by the author.

‘FORMULÆ.

‘TINCTURA IODINI.

‘ R Iodini*	- - - - -	3i.
Spiritus Rectificat†	- - - - -	3iiss.
Solve, terendo in vase vitro.		

‘ LIQUOR IODINI.

‘ R Potassæ Hydriodatis	- - - - -	gr. xxxvi.
Iodini	- - - - -	gr. x.
Aquæ Distillatæ	- - - - -	3x.
Solve, terendo in vase vitro.		

‘ SOLUTIO IODINI.

‘ R Potassæ Hydriodatis	- - - - -	gr. xxiv.
Aquæ Distillatæ	- - - - -	3i.
Solve, terendo in vase vitro.		

‘ LINIMENTUM IODINI.

‘ R Linimenti Saponis Comp.	- - - - -	3i.
Tincturæ Iodini	- - - - -	3i.
Misce.		

‘ UNGUENTUM IODINI.

‘ R Potassæ Hydriodatis	- - - - -	3 ss.
Adipis Præparatæ	- - - - -	3i.
Misce.’		

* I have given Iodine a neuter termination, to correspond with aurum, argentum, &c. as I am of opinion, that it is as much a metal as Potassium or Sodium.

† Specific gravity, .916.

‘ The above preparations of Iodine have been employed by the names prefixed to them respectively, in my Hospital and private practice, for the sake of brevity, and to prevent mistakes. I again beg to observe, that the Tincture of Iodine employed in the above Researches, is exactly of *half* the strength of that recommended by Dr Coindet. Should the London College of Physicians think proper to admit Iodine into their *Materia Medica*, I beg leave to observe, that owing to the difficulty of obtaining rectified spirit of the strength employed by the College, I am of opinion, that it would be attended with less inconvenience to practitioners, and would insure a greater uniformity in the strength of the Tincture, if it were made with proof spirits, in the proportion of one drachm of the Iodine to five ounces of the spirit. A Tincture so formed would be of one-fourth the strength of that employed by Dr Coindet, and of half the strength of that employed by myself; and, in my opinion, would be better adapted for general use than the stronger Tinctures that have hitherto been exhibited; and would be more likely to agree with the greater number of patients than if it were stronger, and less liable to be given in an over dose, which I fear has too often been the case in administering this powerful medicine.’

ART. II.—*The Works of MATTHEW BAILLIE, M. D. To which is prefixed, an Account of his Life, collected from authentic sources.—*
By JAMES WARDROP, Surgeon Extraordinary to the King, &c. &c. &c. In Two Volumes. London. Longman, Hurst, &c. &c. 1825. 8vo.

THE life of such a man as Dr Baillie cannot but be regarded as a most valuable and acceptable gift to the profession. It must be so to all men who love to see their own moral and intellectual nature carried to a high point of elevation, and upon whom such instances of excellence exert their natural and best influence. When this is the case, biography is a truly valuable department of literature. It may teach him who studies it much about himself. It may give rise to purposes which may have never before been deliberately made, and minister in a high sense to those which have been already formed. It may be abused—Sometimes distinction comes late, and after long apparent neglect, of men who have deserved better, and such instances may induce others to wait for their time, or their turn for distinction. But the means which have procured it for others may never be properly estimated or employed. The great men about whom we read have never waited, nor have they ever been neglected. They have laboured from the moment they entered the hard service of

apparent failure, with an untiring zeal. They may have loved the service more than the reward. If it had not been so, failure must have blunted their industry, and they would have at no very distant period from their beginning, been satisfied with what they had done. We have said such men have not been neglected. The public neglects none of those who mean to serve it widely and truly, and have the talent to do so. It is ever looking with a watchful eye upon every effort of a great mind, and marking with as deep an interest as the individual himself, every step of his progress. In many and great instances, this may have been for a time a silent regard. But it has had no portion of indifference in it. A great prize is always at the disposal of the public, and it is a wise jealousy that decides slowly on the individual who shall receive it. In our own profession, this has been very strikingly shown. Dr Baillie himself was forty years old before he found himself fairly established in practice: sometimes opinion is even later in its awards; and there are instances in which they have fallen on the tomb. Still we contend, that truly deserving men are never neglected. Sudden elevation, particularly in our profession, has sometimes been ascribed to mere accident, and it has even been seriously lamented by some, that chance has not brought them into notice. But would chance have kept them there? Truly great men make this chance for themselves. Every event of their lives contributes something to their great purpose. It adds to their distinction, by adding to their claims. Every thing they gain becomes a lasting possession; they hold their reputation by a moral tenure, if we may so say, and chance cannot destroy, what it did not make.

The following remarks are very interesting, and are to our purpose:

‘In no department of life do men rise to eminence who have not gone through a severe course of study and elaborate preparation; for, whatever be the difference in the original capacities of individuals, it is the cultivation of the mind alone which elevates to distinction. No man laboured more in early life than Dr Baillie in order to acquire what may be said to have been the ground work of his professional fame; and his mind thus received that general tuition which fitted it in an especial manner successfully to prosecute the study of medicine. Men sow the seeds of their future reputation, perhaps, at a much earlier period than is usually supposed, and the latter years of life are occupied merely in digesting and arranging what was in early years impressed. It is, therefore, an erroneous doctrine to inculcate to the student of medicine, that he should trust to experience for the acquirement of useful knowledge. Experi-

ence is too apt to be confounded with observation, and in contemplating the life of Dr Baillie, it is evident that all he did for medical science, was accomplished before he had reached his fortieth year, and before he could have had that experience which is generally supposed necessary to lead to eminence.'—l. p. xvii. xviii.

' His disposition was naturally very communicative, and he used to narrate in the most open manner, the history of his own life, and describe to the younger members of his profession, the rocks and shoals which he had met with, contrasting these with his long looked for, but ultimate success. Scarcely any medical person commenced practice in London without being introduced to him ; and such introductions usually led him to make some observations on what his own experience had shown him to be the necessary qualifications to ensure their success, and the probable progress they must expect to make in their professional career. He pointed out the necessity of competency, of integrity, and of industry, and the slow progress of the most eminent men who had gone before them ; and on the other hand, the transitory fame of all those who had ever attempted to gain professional reputation, as if by storm. Such observations, coming from such an authority, were of the greatest use in checking the too warm imagination of the youth, and thus enabled him to see his situation in life, as it really was, and not as perhaps he had allowed his imagination to paint it. Again and again I have heard him remark, that he never knew an instance of a practitioner settling in London who made a large income at first, continuing afterwards to do so. I have been informed by one of the intimate companions of his early days, that he long considered his own success as hopeless, and never contemplated acquiring any thing like celebrity, or even competency. He used, in pointing out the difficulties in the road to medical fame, which he had often occasion to do, to impress on young men the impropriety of living expensively, and the error of considering equipages, and parade, and entertainments, necessary for their success, candidly illustrating these opinions by his own experience.'—i. p. xliv. xlvi.

The following contains some account of his writings :

' The taste which the Hunters created in this country for the study of Morbid Anatomy, marks the period in which they lived as one of the most important and proud eras in our medical history ; and their nephew acquired a taste for this branch of medicine, and cultivated it with great assiduity. Surrounded by their labours, it was not long before he made an admirable use of the valuable stores contained in their museums. A multitude of pathological facts were there illustrated, which he collected and arranged, and which formed the basis of his work on Morbid Anatomy, first published in 1795, a work which, whether we consider the subject, or the manner in which it is treated, has been justly estimated as one of the most practically useful, and most valuable acquisitions to medical science

Till that period all the knowledge on this subject was scattered through the voluminous writings of Bonetus, Lieutaud, and Morgagni; so that the clear and concise account of the diseased changes of structure of the different organs of the human body, given by Dr Baillie, formed not only a most excellent elementary work, but was no less useful as a general pathological treatise. This work was soon translated into the French and Italian languages, and also into German, by the celebrated Professor Soemmering, who, when speaking of its merits, observes, that "the strictest attachment to truth characterises every page of Dr Baillie's work; accurate and impartial reasoning is every where conspicuous; and there is no part but what displays the share of attention that had been paid in observing those alterations of structure to which the various parts of our body are subject. Attentive and thinking practitioners will here find facts which will furnish them with the true causes of many phenomena they have observed; they will often find explanations they had long wished for; and some will meet with facts, which, instead of agreeing with favourite theories, will serve in the strongest manner to refute them."

'About four years after the appearance of the work on "Morbid Anatomy," he began to publish the "Engravings" for its elucidation. Of these it may be truly said, that, for choice of subjects, accuracy of drawing, and beauty of engraving, they have never been excelled; and along with the work itself must remain a lasting memorial of the zeal, the industry, and the talents of their author. The drawings were made by Mr Cliff, whose subsequent valuable services as Conservator of the Museum of the College of Surgeons, prove how well he merited the esteem and regard early felt for him by Dr Baillie.

'To these publications are to be added the papers which appeared in the Transactions of the Royal Society, of the Society for the Improvement of Medical and Surgical Knowledge, and of the College of Physicians, all of which are given in the present collection of his writings, and in all of which are to be found some important pathological facts or some useful practical observations. He also edited William Hunter's Account of the Gravid Uterus, left in MS., to which were made such anatomical additions as appeared to be required.'—i. p. xxix. xxxii.

Dr Baillie attained to the highest distinction in his profession, and at a period of its history when this was not easily done. True, there were circumstances which favoured his progress. He was a nephew of the two Hunters; and to this circumstance some may ascribe his success. But it is grateful to learn by the record that this was not his passport to fame. It was the use, the honorable use he made of his privileges, that was his warrant of success. He had a fine apprehension of the precise value of these, and he at once availed himself of them. He was the most industrious and successful cultivator of morbid

anatomy in medical history. He entered upon the labours of his great kinsmen with a zeal fully equal to their own, and it was not till the pressure of business, the labour of curing disease, aroused him from the study of its effects after death, that he at all remitted his hard toil.

The following remarks on the value of anatomy to the *physician*, deserve quoting :

‘ The great value of anatomy to the physician, Dr Baillie had also learned from his own experience, as well as from his knowledge of the history of almost all those men who had distinguished themselves by their contributions to medical science ; and he was particularly anxious that a minute anatomical education should be deemed as indispensably necessary for him who only intended to practice as a physician, as it has always been considered to the surgeon. To use his own language when alluding to this subject, “ a disease must always have a relation to a healthy action, or healthy structure of parts, for it is only a deviation from them, so that a knowledge of disease would appear to rest on a knowledge of the body in its healthy state.

‘ “ It is unfortunate that the peculiar mode of deviation is not always discoverable, but it is evident that we cannot on any occasion become well acquainted with the one without having previously known the other. It is in this point of view that Anatomy and Physiology become so very important, as being most likely to afford the means of relieving the body when suffering under disease.” And again he adds, “ If anatomy then be of so much use in physic and surgery, it ought to be earnestly cultivated by those who really wish to know their profession, and to become respectable in it. This is not a trifling matter. Justice and humanity require every exertion where the lives of our fellow-creatures are concerned. There are many professions where negligence or inattention may be reckoned a folly ; but in medicine it is a crime. There is nothing that renders a person more fit for the discovery of new diseases, than a knowledge of anatomy. Who can be so able as he who is familiar with the natural structure and diseased appearances in an animal body ? There are diseased appearances which are very common in an animal body, and which are of no great consequence. It requires a familiarity with the body to distinguish them from appearances strictly natural, or from diseases that are really serious. This last circumstance is of great importance, when we consider how often we are required to examine bodies after death, for the satisfaction of friends or for judicial inquiries. On our judgment may depend the life of a fellow-creature. What reflection can be more serious to a man of humanity ? But independently of these circumstances, there will be many cases of doubt presenting themselves to our minds which we would wish to settle, but shall not be able, unless we are acquainted with natural structure and diseased appearances ; yet how is physic to be improved otherwise ? ”*

* Introductory Lecture.

‘It is indeed much to be regretted, that the government of this country, unlike those throughout the rest of civilized Europe, should have withheld their protection from anatomical pursuits ; for, however well-conducted any school may be, anatomical knowledge will never receive that excitement so necessary to the completion of a medical education, until a secure mode of procuring subjects for dissection be afforded it. Till then teachers of anatomy must ever be exposed to insult, by being the means of employing and supporting those who are offending the existing laws of society.’ i. pp. xxiii. xxvi.

The progress of men in our profession, and the personal habits of Dr Baillie, appear in a very interesting manner in the following :

‘There is no profession, perhaps, in which the progress, even of the best qualified, is so slow as in that of physic: this necessarily arises from success depending entirely on the exertion and assiduity of the individual; and it is well known that of those medical men who have had the greatest share of public confidence, the most of them have previously been considerably advanced in years. This was the case in a remarkable degree with Dr Baillie; for, when the great celebrity of the latter years of his life is considered, it might have been expected that he would have earlier enjoyed no small portion of his fame. It was not, however, till he had nearly reached his fortieth year, that he found himself fairly established in practice; but it should seem as if he had only required to be known, for, from that period, he became completely engaged in his profession, and in a very few years rose to that eminence so universally acknowledged.’ i. pp. xxxiv. xxxv.

‘His personal habits were simple, and calculated to give little trouble; and it was as easy to please him in those matters that regarded his table, as his toilet. He seemed to have a particular dislike to the affectation and peculiarities of dress displayed by some medical men, as derogatory to the respectability of their profession.

‘He was in the habit for the many years he was so much employed, of devoting not less than sixteen hours of each day to the drudgery of his profession; he usually rose at six o’clock in the morning, and occupied himself till half-past eight in answering letters, writing consultations received the day before, and arranging the visits for the day. Until half-past ten o’clock, he saw patients at his own house, after which hour he paid visits till six o’clock. He generally allowed only two hours of relaxation for dinner, spending the remainder of the evening, and often till a late hour at night, in again paying visits. After such a day’s labour, it could hardly be expected that his sleep was sound and refreshing.

‘There is no state so distressing as that of being called upon to perform more duties than the mind is competent to undertake. Hence arise irritability and change of the natural character. When he became harassed with business, an irritation of temper sometimes

disturbed him, but which, from the kindness of his heart, was immediately followed by such compunction, as occasioned him far more trouble, than if he had at once complied with an intrusive request. Often has he been known under such circumstances thus to express himself: "I have spoken roughly to that poor man, I must go and see him, be it ever so late." "That patient is in better health than I am in myself, but I have been too hard with him, and must make him amends." "I have been impatient with that poor hypocondriac." Thus the irritable temper and the kind heart were at constant variance with one another, to the injury of his tranquillity, and the increase of his bodily fatigue. He has frequently come to his own table after a day of hurry and annoyance, and held up his hands to his family circle ready to welcome him home, saying, "Don't speak to me," and then by and by, after having drank a glass of wine, he would look round with a smile of affection, saying, "You may speak to me now," and never was he more agreeable than when one of these dark shadows had passed over him. After he had limited his practice to consultations, he one day said with much satisfaction, "I am glad to find that I can now give any body that speaks to me a civil answer."

'The extent of Dr Baillie's practice, and the number of years he was fully occupied in it, enabled him not only to indulge in every wordly comfort and *luxury*, but to amass a very considerable fortune. No man had a more just notion of the value of money, estimating it merely in as much as it afforded him the means of procuring what was necessary and suitable for his situation; but he was extremely careless in the management of it, and paid no attention to pecuniary details. With so little love for money, it may appear strange that he should have devoted so much of his time, and have exposed himself to so much mental and bodily fatigue, in order to obtain it. But it seems natural in most men, who arrive at the zenith of professional fame, to cherish the desire of reaping all the advantages which their elevated situation affords them, and thus without considering the evil consequences to their health, and the destruction of their constitution, run headlong into all the mischiefs of a life of constant excitement, and deprive themselves of every domestic enjoyment, and mental recreation. In the various departments of public life, as well as in medicine, there are daily before us painful examples of eminent men sacrificing their dearest interests, in the pursuit of professional fame, whilst the more reflecting part of that very public for whom they are thus destroying their health and their true happiness, never regard the sacrifices which they thus make.' i. pp. xlvi.—li.

Dr Baillie was remarkable for facility in distinguishing disease. His profound knowledge in morbid anatomy, was an almost unfailing means of diagnosis. He not only could distinguish diseases with astonishing accuracy, but could also as-

certain their extent, and the chances offered of relief. ‘ Habits of attentive observation had also enabled him to know, with great accuracy, the precise effects and extent of the powers of medicines ; indeed, there was no class of cases more likely to fall under his observation, than those in which they had been abused ; younger practitioners being apt to carry particular systems of treatment beyond their proper limits. Dr Baillie’s quickness, therefore, in perceiving this abuse, rendered his opinion in many such cases of great value.’ As a man advances in years he becomes more and more convinced of the narrow limits of his knowledge, and of how much more he has to learn.

‘ No one seemed more aware of this than Dr Baillie ; and I have frequently observed this superior knowledge of his art lead to the remark, that his practice was inert ; for when he perceived certain and irremediable changes in disease, or when they had a fatal character from their commencement, he would merely attempt to palliate, whilst a practitioner not possessing his accurate knowledge, would have made fruitless efforts to cure the disease.’ p. xxix.

Our quotation contains very important truths. The wisest physician is not always he who does most. Nothing has injured the profession, or abused the public so much as the mere reputation for boldness which some physicians seek to obtain. Nothing is so simple as the bold, we had said, rash exhibition of powerful medicines, and nothing is more replete with danger. It is harder to study disease, and patiently watch its progress, even whilst that progress seems safe, than to judge hastily, and to prescribe rashly. It is hardest where danger is imminent. We know of no discipline so severe for the mind as the course pursued by Dr Baillie. Ordinary responsibility gets an added strength from the solicitude of friends, and the fears of patients ; and the only alternatives that may remain for us, are, whether we shall act without any light from indication, or not act at all. Great men have decided this question ; and he cannot have practised medicine long, or wisely, who has not seen in some of the worst of the cases alluded to, the whole value of pursuing the latter alternative.

The following is so beautiful, and conveys lessons so valuable to the whole profession, that we cannot resist the temptation to quote it entire. It is moral beauty which it unfolds, and it is the more valuable from its union with great intellectual power :

‘ He had a most natural, unassuming, but decided and impressive manner, which, in the exercise of his professional duties, was the

same to all persons, and on all occasions ; his benevolent principles led him to disclaim all distinctions in his mode of addressing the sick. His slender form, together with the great modesty of his deportment, and the simplicity of his manners, often appeared very striking to strangers, who, from his distinguished character, had been led to expect something more imposing in his person and manner. His mind was always quietly but eagerly directed to the investigation of the symptoms of his patient's disease, and he had so distinct and systematic a mode of putting questions, that their answers often presented a connected view of the whole ailment, which could not fail to impress them with his clear and comprehensive understanding. He was modest in his estimation of himself ; he would say to his own family. " I know better perhaps than another man, from my knowledge of anatomy, how to discover a disease, but when I have done so, I don't know better how to cure it." There was one pleasure which he sometimes received from this confidence in his sagacity in detecting diseases, and that was when he could convince any person, who came to him under the impression of having some fatal malady, that there was nothing materially the matter with him ; years of peace and comfort that would otherwise have been years of apprehension and misery, he was conscious of having thus bestowed on many.

Dr Baillie was also remarkable for the consideration he paid to the feelings of his professional brethren, more particularly to the younger branches, and others who could not be supposed to enjoy the full confidence of the public ; and no feature of his character elevated him more than this in their estimation, for medical men have been too often censured for attempting to underrate the talents, and expose the errors of their brethren, and thus to create great distress to patients by giving contradictory opinions. Whatever may have been the general feeling of esteem for Dr Baillie, his memory ought above all to be respected by the members of his profession. The influence possessed by a man of his moral worth, as well as his professional reputation, tended in no small degree to elevate the character of the profession to which he belonged in public estimation, and to rescue it from the imputation of quackery, which the conduct of others was too much calculated to impress. He formed a just value of public opinion ; and to use his own expression, when alluding to it, " If the public opinion is not to be estimated, we must have a poor idea of what is to most men so valuable." Of the public confidence which he himself possessed, he spoke with modest satisfaction, but of the good opinion of medical men, he could not speak but with emotion ; and at public meetings, when any particular mark of their regard has been shown to him, this generous feeling would often swell within his bosom, to a distressing degree. I well remember when he was at the head of the table, at a dinner given by the Society for the relief of the widows and orphans of medical men, that he was quite overcome when he endeavoured to

point cut the propriety of men of his profession who had been more fortunate, to use his own modest expression, contributing to assist those who had been carried down the stream of adversity.

‘ He was remarkable for his punctuality in every thing connected with his intercourse with society, particularly in answering letters, paying visits, and in keeping professional appointments. He used to say, “ I consider it not only a professional, but a moral duty, to meet punctually my professional brethren of all ranks. My equals have a right to such a mark of my respect, and I would shudder at the apprehension of lessening a junior practitioner in the eyes of his patient, by not keeping an appointment with him.” He managed to keep his appointments very accurately, for if he was by any accident detained too late, he forfeited one appointment to save the rest.’

p. xl.—xlvi.

He was physician to the King.

‘ In the year 1810, he was commanded by the late King to attend on his youngest daughter, the Princess Amelia, along with Sir Henry Halford, Sir David Dundas, and Dr Pope. Though he was very sensible of the honour of receiving such a command, yet he felt that it was adding greatly to the embarrassment occasioned by his very extensive practice ; but whatever might have been the inconvenience of this attendance to himself, the condescension and kindness of His late Majesty very soon reconciled him to his visits at Windsor. He has sometimes been heard to mention with pleasure the amiable and manly traits of His Majesty’s character, and also the acuteness of his mind. He once observed, “ If I knew any thing that I wished to conceal, I would rather be cross-questioned regarding it by any barrister in England than by the King, for his questions bear so directly on those points most important for discovery, and are put in such a manner that they cannot be evaded.” Amongst some memoranda left behind him is the following anecdote, which cannot be read without interest :—“ One day when I waited on the King, with the other medical attendants, in order to give an account of the Princess Amelia, His Majesty said to me, ‘ Dr Baillie, I have a favour to ask of you, which I hope you will not refuse me, it is that you will become my Physician Extraordinary.’ I bowed and made the best acknowledgment in words that I could. His Majesty added, ‘ I thought you would not refuse me and therefore I have given directions that your appointment shall be made out.’ A few days afterwards when he again waited on the king, he said to the other medical men in my presence, ‘ I have made Dr Baillie my Physician Extraordinary against his will, but not against his heart.’ ” On one occasion the King was advised to go to Bath, and Dr Baillie recommended him to consult there a medical gentleman whom he named ; the King immediately conjectured the country from whence he came, and after listening to all Dr Baillie had to say of him, His Majesty jocosely observed, “ I suppose, Dr Baillie, he is not a Scotchman ! ”

‘ Dr Baillie was afterwards called to attend His Majesty himself in his last illness, which attendance was protracted during a period of ten years, and his professional duties at Windsor, which he at first found irksome, by subverting all his former habits of business, soon turned out to be a great relaxation.

‘ Whilst he was thus in attendance at Windsor, a circumstance occurred which marked the candour of his character. There was much canvassing for a representative in Parliament for the county of Gloucester, where he had purchased an estate, and a nobleman zealous in the support of the ministers then in office, applied to him by letter for his vote. He wrote for answer that he was so very much engaged in business as to make it impossible to take a journey to Gloucester to vote for any candidate; but at the same time, he thought it right to inform his Lordship, that he had always voted for the Whig interest, and should continue to do so.’ p. iv.—lviii.

It is hardly necessary for us to say that Dr Baillie was benevolent, or how much he was honoured. The man who understood so truly the claims of his profession, and allowed them so cheerfully and so fully, could not fail to possess and exhibit a wide and true love of all men. Our limits will not allow it, or we would have transcribed some of the instances from his life. He was truly honoured. It was honour from king and subject,—from wealth and poverty,—from learned and unlearned men, that was paid this physician. He has bequeathed to his profession a legacy richer than all his writings, a ‘ good name.’

The following is from Sir Humphrey Davy’s address at the first anniversary meeting of the Royal Society, after Dr Baillie’s death:

‘ ‘ It is difficult in speaking of those with whom we have been connected by ties of friendship, whom we have admired and reverenced, to be strictly impartial; yet I believe that the merits of Dr Baillie can hardly be estimated too highly, even by those who had the warmest feelings of affection for him.

‘ ‘ Whether considered as a physician or as a man, his talents and his virtues were alike distinguished. His works show the accuracy and clearness of his judgment, his minuteness of observation, and his acuteness in referring facts to their true causes, amidst the complicated phænomena presented by diseased organs. Whoever heard him give his opinion in the council of the Royal Society, was struck by the clearness and simplicity of his details, and the happy manner in which he caught the relations, and explained the nature of a scientific subject, in which he was interested.

‘ ‘ Those who have seen him by the bed-side of the sick, well know the kindness of his nature, the deep interest that he took in the sufferings and danger of his patient; and will above all estimate the nobleness and disinterestedness of his conduct.

“ An honour to his profession in public life, he was most amiable in his intimate social relations and domestic habits. No man was ever freer from any taint of vanity or affectation. He encouraged and admired every kind of talent, and rejoiced in the success of his contemporaries. He maintained amidst courts the simplicity and dignity of his character. His greatest ambition was to be considered as an enlightened and honourable physician. His greatest pleasure appeared to be in promoting the happiness and welfare of others.” pp. lxiv. lxv.

The first of these volumes contains, with the life, miscellaneous papers collected from various works in which they first appeared, and some found among Dr Baillie's manuscripts. The second contains the ‘Morbid Anatomy,’ to which is prefixed by the editor, a ‘General Account of Diseased Structures.’ This seemed required by the rapid advancement which pathological science has made within the last few years. The first article is on Paraplegia in Adults. The following account of the symptoms are from additional observations on the disease:

‘ In a large proportion of the cases which I have seen, there was pain or some other uneasy sensation in the head. In a few cases there was a defect of memory, more especially of words, and in one case an occasional paralytic pronunciation. In two or three cases there was a want of the ready exercise of the understanding. In a considerable number of cases there was the dropping of one or both upper eyelids, and a gutta serena in one or both eyes. These affections have sometimes been associated together, and have sometimes been distinct. The dropping of the eyelids will often go away repeatedly and return. The gutta serena will sometimes in a great measure subside. In one case a person affected with paraplegia saw double for more than six weeks. The pupils were more contracted than natural, and the Iris not sufficiently active in its motions. In almost all the cases of paraplegia which I have seen, the upper extremities have been impaired in their muscular power. The grasp of the hands has been more or less feeble, there has been sometimes a sense of numbness in them, and occasionally objects will drop from the hands. In some cases the handwriting becomes irregular and indistinct. In two cases I found the sense of touch considerably impaired, so that shillings and sixpences could not be distinguished from each other. It is remarkable that I heard from two individuals affected with paraplegia, quite unknown to each other, the same illustration that I have now given of the defect which they experienced in the sense of touch. In all these cases, as far as I recollect, there was no apparent disease in the upper part of the spine, and indeed no distinct appearance of disease in the spine at the loins. The morbid appearances in this disease have

as yet not been sufficiently investigated by dissection. Besides the account of the dissection published in my former paper, I have heard from the most undoubted authorities, of one case where tumours were found in the brain; and of another, where a large quantity of water was found in the ventricles of the brain, together with some in the theca vertebralis. To these I may add a third case, on the best authority, in which many of the arteries of the brain were found ossified, and a large quantity of water effused between the membranes of the brain. These observations may, I hope, be of some use in directing the attention of Medical Practitioners more to the head in this complaint than hitherto, and may perhaps lead to a more successful mode of treating this very formidable disease.* pp. 9, 10.

The next paper is very curious. It gives an account of a case of Hydrocephalus in a boy 7 years of age, in which the bones of the cranium, once firmly united, were separated from each other to a considerable distance. Nearly a pint of water was found in the ventricles of the brain after death.

Observations on a strong pulsation of the aorta in the epigastric region.—This is sometimes met with and occasions some embarrassment to the physician, and uneasiness to the individuals who experience it. It may be first noticed in disease, and may be among symptoms. Where we have noticed it, although it was during disease, we have been rather disposed to regard it as a peculiarity in the individual, and which has existed for some time, than as a symptom of the present disease. According to Dr B. it is most commonly met with at and after adult life; is most common in men; in some is most observable in the evening, and particularly when the individual is in the horizontal posture. How may it be distinguished from aneurism which it counterfeits, and with which it has been confounded?

It would be a matter of considerable importance, if we could at all times distinguish with certainty the pulsation of the aorta, about which we are now treating, from that pulsation which is occasioned by aneurism of the aorta in the epigastric region. This, however, will, in some instances, be hardly possible, and more especially in the early periods of aneurism. When the boundaries of the artery can be distinctly felt, and when the artery itself can be ascertained to be of the usual size, it is clear that, notwithstanding the force of the pulsation, the disease is not aneurism.—When a round circumscribed tumor pulsates against the fingers applied to the epigastric region, there can then be little doubt that the disease is aneurism,

* It may be proper to state that cases of Paraplegia in adults as well as in children sometimes take place from derangement in the digestive organs. (Ed.)

either of the aorta or of the cœliac artery. When the pulsation has continued for several years without the health being materially impaired, even if the boundaries of the artery should not be distinctly felt, yet there is the strongest reason to believe that the pulsation of the artery does not depend upon an aneurismal swelling in it.

‘I am not acquainted with any means of curing this symptom or complaint. Whatever improves the digestion, and renders the constitution less irritable, will be of use in mitigating the increased pulsation; and, above all other circumstances, it is useful to remove the patient’s anxiety respecting the disease, when it can be fairly done.’

‘I have thought it of some importance to communicate my observations respecting this complaint, as it may tend, in many instances, to relieve the anxiety of the patient. It may likewise, in time, lead to a successful treatment of the disease, with which the increased pulsation of the aorta in the epigastric region is connected.’* pp. 25—27.

Papers follow on some uncommon appearance of disease in blood vessels—On the want of a pericardium, of which a case is given—three cases of laryngitis and case of emphysema not proceeding from local injury. We extract the history of the last very rare case:

‘I had lately an opportunity of observing a very uncommon appearance of disease in the living body, as well as of examining its extent after death.

‘M. B., aged about ten years, was admitted nearly three months ago, a patient into St. George’s Hospital, with anasarca and ascites; but I visited her only two days before her death. When I saw her lying in bed, her appearance differed in nothing from that of a person highly anasarca, nor should I have at all suspected that there was any peculiarity in her complaint. On attempting to feel her pulse, however, I was surprised by the crackling of air under my fingers. The skin was considerably elevated, so that the pulse, by that means, was indistinctly felt. I then pressed upon the skin of the back, breast, belly, &c. and there was the same crackling of air. Air was also felt in the cellular membrane of the inside of the thighs. There was at the same time, so considerable a quantity of water accumulated in the cellular membrane of the legs and face, as could readily be distinguished by the doughy feeling on pressure.

* The publication of this paper has been extremely useful in calling the attention of practitioners to discriminate between the affection of the aorta therein described and aneurism. It is, however, proper to remark, that it has occasionally led to error; and I have known more than one case of strong pulsation in the epigastric region, where Dr. Baillie himself conceived no organic affection to exist, but which opinion was proved to be erroneous after death. In these cases, when there is no organic affection, the increased pulsation will usually be found to be connected with derangement in the functions of the *prima via*. (Ed.)

The girl herself lay in a sort of stupid state, expressing, however, a sense of considerable pain, and having a good deal of difficulty in breathing.

‘ The patient died the next day, and I took an early opportunity of examining the full extent of the disease by dissection.

‘ Air was found diffused through the cellular membrane of the trunk, arms, thighs, &c. as formerly related. On making an opening into the cavity of the abdomen, the stomach was found distended, almost as far as it could stretch, with air, and the whole intestinal canal was moderately filled with it. The air, too, had penetrated into some parts of the cellular membrane of the stomach and intestines. The laminæ of the peritonæum, composing the mesentery, were separated to some distance from each other by the air which occupied its cellular membrane, and the small vessels running upon the stomach and intestines were universally filled with air. There was about a gallon of water in the cavity of the abdomen.

‘ On opening into the cavity of the chest, a great quantity of air was found in the cellular membrane between the pleura and the pericardium, but none could be discovered in the cellular membrane which connects together the air cells of the lungs. A considerable quantity of water was found in the cavity of the pericardium, and about two pints in the left side of the thorax.’ p. 66—68.

‘ *Some observations respecting the Green Jaundice.*’—This is for the most part a fatal disease. Dr Baillie has recollect'd but two cases which recovered. Sometimes the colour is so intense as to appear in some places black, and this circumstance has given rise to the name of black jaundice, by which this disease has often been distinguished. Green jaundice is a disease of middle or advanced life, more frequent in men than women, and is less connected with intemperance than the yellow. The liver is frequently hard, enlarged, and tuberculated, there is little pain, except on pressure, when slight pain is experienced. It is more frequently attended with dropsy than yellow jaundice, even when the last depends on induration of the liver. The pulse, stools, and urine do not differ a great deal from what happens to them in yellow jaundice. In this last the colour disappears on recovery. In the other the green tinge continues, and in the fatal cases till death. On the face it remains even after recovery. The progress of the disease is slow, but for the most part severe. Death occurs in a year or two, in the majority of cases; in a few, patients survive many years. Medicine has done, according to Dr B. but little good. Mercury in a few cases has appeared to alleviate the symptoms. He has thought moderate and daily doses of the neutral salts have occasionally been of some advantage.

A fatal case of diabetes, and the appearances after death, and a remarkable one of fatal constipation follow. In this case no evacuation from the bowels occurred for nearly fifteen weeks before death. A case is given in which a portion of gut apparently the colon, about a yard long was discharged; the patient lived three weeks after discharging it. We extract the following as very useful in the diagnosis of spasm and organic disease of the rectum.

'The above case, (spasm of the sphincter muscles,) is very different in its nature from the usual stricture of the rectum, and it is of considerable importance, that it should be distinguished from it in practice. In the one case, the prognostic would be favourable, and in the other case, it would generally be the very contrary. By a slight degree of attention, the two cases might be confounded, but when accurately examined, they may at all times be clearly distinguished from each other. In both cases, the fæces will be found flattened in their shape, small in their size, and in some degree serpentine or twisted; but the other symptoms will be found very different. In the common stricture of the rectum, the situation of the stricture is generally two or three inches above the outer sphincter, and there is a sound capacious portion of the bowels between the stricture and its sphincter. At the seat of the stricture, the coats of the rectum are felt more or less thickened, and not uncommonly there is a hard irregular ulcer in the cavity of the stricture.'

pp. 129, 130.

It has been commonly supposed that the hair and teeth occasionally met with in the human ovary, was an imperfect generation, and could only be produced by the connection of the sexes. Dr Baillie gives a very interesting case in which the ovary of a girl twelve or thirteen years of age contained these bodies. The hymen was entire, the uterus exceedingly small, as small as at birth, and the opposite ovary of a corresponding size. From these and other circumstances he advances the doctrine that they depend on an action in the ovary itself, without any stimulus from the application of the male semen. Numerous facts are adduced in support of this position. Among these are many from Mr Hunter, who found hair in tumours in parts of the body absolutely unconnected with generation.

The remaining papers in this volume, are, 'a remarkable instance of transposition of all the thoracic and abdominal viscera;' one of 'malformation of the urinary bladder,' and various dissections.

The second volume contains the 'Morbid Anatomy.' To this, as was before said, the Editor has prefixed some preliminary observations on diseased structures.

Medico-Chirurgical Transactions. Vol. XIII.—Part I. London: Longman & Co. 1825.

THE Medical and Chirurgical Society of London, whose Transactions have hitherto proved so acceptable and valuable to the medical public, has been for sometime past, as we are informed by a London Journal, in a declining state. The zeal and interest with which it was originally supported have ceased to animate its members, and it has been gradually falling into decay. The present volume is the result, as it is intimated, of an effort to restore it to its original activity, and we hope most sincerely that the attempt will prove successful.

It would not be surprising, however, if it should prove otherwise, for such has been the fate, and such from the nature of the case, must generally be the fate of all similar undertakings. This has in fact continued for a greater length of time than was to have been expected; in the course of twelve or fifteen years, a society of this kind, almost necessarily falls into second hands. The original founders are generally men not fully engaged in professional pursuits, and as they advance in life, their increasing avocations of a more imperious nature, necessarily withdraw their attention from such an institution. Their successors never can feel the same interest, nor the same zeal for its success; for they will have principally entered it after its decline has begun, and will partake rather of the spirit they find prevailing in it, than of that with which it originally commenced.

At the beginning of such an undertaking also, those most actively engaged, either possess themselves, or can obtain from others, materials for publication which have been many years accumulating, from the mere defect of some inducement for their preparation. Accordingly, the few first volumes of the papers of almost any Society, will be found more valuable than those which succeed. This has been the case with those of the Society whose Transactions are before us. It has been a matter of common remark, that the latter volumes, although valuable, have not supported the character acquired by the earlier; and the present volume will not form an exception to that remark. For, although it possesses a value sufficient to render it well worthy of publication, still it by no means approaches that of some of the preceding volumes. We proceed, however, as usual to its analysis.

I. *Case of Axillary Aneurism, successfully treated by tying the subclavian artery.* By CHARLES ASTON KEY, Esq. Surgeon to Guy's Hospital.

A man aged 36, whilst making a sudden exertion with his right arm, felt something snap below the collar bone. In a few days the aneurism made its appearance, and continued to increase. Great pain, increase of size in the tumour, and constitutional irritation, were occasioned by an injudicious attempt on the part of a surgeon to reduce the disease by pressure. By the advice of Mr Key, he consented to undergo the operation for tying the subclavian artery, which was accordingly performed by that gentleman.

' The patient being brought into the operating theatre, the extent of the sac in the neighbourhood of the subclavian artery was ascertained, to guard, if possible, against the danger of opening it during the operation of passing the ligature under the vessel; it appeared to be bounded above by the subclavian muscle, and the artery above the clavicle appeared (as far as the finger could ascertain) to be healthy. The clavicle was raised to its utmost, and was curved considerably backward towards the trapezius muscle; it could not be raised higher by pressure made upwards against the elbow. The patient being laid upon an inclined plane, so that the light from a large skylight might be thrown into the triangular space in which the artery lies imbedded, I began the external incision in the following manner. Standing by the patient's right side, I drew the integuments down over the clavicle with my left hand, and cut freely upon the bone, beginning about half an inch over the clavicular portion of the sternomastoid, and continuing the incision outwards for three inches. The integuments being relaxed, the incision became raised about the third of an inch, above the clavicle, and exposed a strong platysma myoides, which was divided to the same extent. Numerous turgid veins were now exposed lying upon the cervical fascia; to avoid them was impossible; they were therefore divided, and about three ounces of blood were quickly lost; one larger than the rest was secured by Mr Travers to prevent any obstruction from hemorrhage in the after-steps of the operation. The dense outer layer of the cervical fascia was then more freely divided, and the loose cellular texture enveloping the glands of the neck being detached by the finger, the omohyoideus was laid bare. A little farther dissection with the end of a director exposed the artery to the finger, pulsating over the rib; but the depth of the angle, in which it was inclosed, rendering it impossible to pass a ligature under it, about three quarters of an inch of the clavicular portion of the sterno-mastoid was divided, which afforded sufficient room, and rendered the concluding part of the operation easy; the artery became readily exposed to view,

and an armed aneurismal needle was passed with facility under it. A single ligature of silk was tightened around the vessel, and the edges of the wound brought into contact with two sutures and adhesive plaster. The patient had been so little exhausted by the operation, which lasted twenty minutes, that he expressed a wish to walk down stairs to his bed, which of course was not consented to.

' The absence of any very untoward symptoms renders it unnecessary to trouble the Society with a detail of the conclusion of the case. It will be sufficient to mention, that eight and forty hours after the operation, a general excitement of the system with an acceleration of pulse induced Mr Travers to prescribe (during my absence from town) a purgative of scammony and calomel, which not only removed the symptoms of general fever, but also a retention of urine, arising from a slight stricture, under which he had previously laboured. His urine had been twice drawn off by the introduction of the catheter. A trivial irritation of the trachea, inducing an occasional cough with expectoration, was allayed by the opiate linctus of the hospital. Opiates in other forms were not found necessary, with the exception of two nights on which his rest had been broken, when gtt. xxv tinct. opii were given him. The œdema of the limb subsided quickly after the ligature was applied to the vessel; its natural warmth was maintained, perhaps aided by being enveloped in a double fold of thin flannel; and the pain of which he complained prior to the operation, altogether left him as soon as he returned to his bed. The local treatment consisted in the application of a light poultice to the wound, after the removal, on the fourth day, of the adhesive straps and sutures, and in the prevention of sinuses from the lodgment of purulent matter.

' The ligature was found lying detached in the wound, on Wednesday morning, October 1st, the twelfth day after its application, and was removed without hemorrhage. The wound was nearly cicatrized, with the exception of the aperture occasioned by the ligature, which is gradually closing. On the following day he was allowed to leave his bed, and walk about the ward, to relieve the fatigue occasioned by the uniform position he had scrupulously maintained, till the ligature came away. The tumour is gradually subsiding, gives him no uneasiness, and promises to be absorbed without inflammation or suppuration. The pulse at the wrist cannot yet be felt. pp. 4—7.

Mr Key lays some stress upon the advantages derived from the division of the sterno-mastoid muscle, and upon a peculiarity in the mode of conducting the needle under the artery, which, however, cannot be made intelligible without the aid of the plate.

II. *Case of Tumor in the Anterior Mediastinum, containing Bone and Teeth.* By JAMES ALEXANDER GORDON, M. D. Physician to the Islington Dispensary.

This patient had in the first place symptoms resembling those of pneumonia, which were followed by the appearance of a tumour below the sternal extremity of the left clavicle, which, from its situation and pulsation, was pronounced an aneurism of the aorta or arteria innominata. This tumour increased in size, and extended at one time over the trachea, producing difficulty of breathing. It pointed and discharged only a small quantity of a serous fluid from a superficial cavity, but from this time the tumour receded, and finally disappeared, having existed for about a year. The patient was at this time in better health than she had been for two years, but in about a month from her discharge from the Dispensary she returned with symptoms of general fever and oppressed breathing, and died in three days. The following is the account given of the dissection by Mr Kingdon who opened her body.

“ There was a tumor in the anterior mediastinum, closely attached to the upper two thirds of the sternum, and the sternal extremity of the right clavicle. The left side of the chest contained a considerable quantity of fluid, and the lung was adherent to all such part of the costal pleura not so occupied. The right lung was adherent on its whole surface, and not capable of being detached at any part; its interior was loaded with fluid, and offered the appearance of œdematous cellular tissue, resembling lung only in its colour. The heart was flaccid, but its interior arrangement apparently healthy. The aorta and vessels given off at its arch were healthy, but the arteria innominata was completely enveloped by the thickened cellular tissue which connected the tumor with the surrounding parts. The parietes of the tumour participated in the character of that with which it was in immediate connexion; thus its anterior, from which the sternum was with difficulty raised, had the close compactness of tendinous expansion; and its posterior and lateral portions were more loose and flaccid. The contents were, serous fluid, sebaceous matter, mixed with hair, the latter not in large quantity nor in distinct locks, and an apparently fatty mass at the bottom, which being cut open proved bony, and on more careful examination, a bone was detected very nearly resembling the upper maxillary, a portion of alveolar process which might seem to belong to the upper or lower maxillary, and seven teeth, two cupidati, two incisores, and three molares. One of the cupidati has its crown perfectly covered with enamel and freed from its capsule; the other is covered with the capsule, but is removed from its socket without any connexion. The molares are in their sockets imperfectly formed, while the incisores are by means of

their capsules attached to what at first appeared fat, but which on closer examination seems to possess the character of palatine membrane.''" p. 14—16.

III. A Case of Injury to the Blood Vessels of the Lower Extremity, producing pale dry Gangrene in the Foot. By THOMAS WILLIAM CHEVALIER, Esq.

The injury in this case was received in the groin, by contact with the shaft of a van and the patient lost at the time a pound and a half of dark coloured blood. The femoral artery and vein were exposed for above an inch of their course. This injury was followed by a loss of feeling in the lower half of his leg, which became cold, pale and cadaverous, and without pulsation in its arteries. The sensibility remained in some measure. He could slightly perceive the warmth of the hand, and there was a little power of motion, and sometimes severe pain. Parts of the limb were discoloured, but there was no vesication and no sign of approaching inflammation, except great tenderness. The colour of the calf of the leg was like that of a bruised part, and did not return after pressure. The ankle and foot were of the colour of new mahogany, but this colour could not be removed by pressure; the toes were dry and shrunk, but did not lose their cuticle. This case began gradually to assume an unfavourable aspect. The patient had regular febrile paroxysms, the wound had an unhealthy appearance, and the sensibility of the limb diminished. At length about 18 days after the accident a coagulum of blood as large as a walnut, in a state of commencing decomposition, was pressed up from the bottom of the wound. An alarming hemorrhage followed which rendered an immediate operation necessary. The bleeding vessels were with great difficulty secured, but the patient died at midnight from exhaustion and loss of blood.

‘ The arteries were all impervious in the neighbourhood of the wound; but the inguinal, the femoral, and the profunda veins were found separated by ulceration, and terminating by open mouths in the depth of the wound. These vessels had all been tied, so that the patient died from constitutional debility the effect of an intemperate life, of the injury in his groin, and of the loss of blood previous to the operation, with that of about a pint and a half which escaped rapidly while it was being performed. The muscles of the leg were rather livid when first exposed, but not at all disorganized. It is remarkable that although there were some traces of florid blood in the anterior tibial artery, the femoral was found distended below the seat of the wound, with blood of the deepest modena

hue. The colour of the calf of the leg was become very much darker since yesterday morning.'

IV. Case of Ulceration and Rupture of the Stomach. By JOHN ELLIOTSON, M.D. Cantab.

In this case the patient, an unmarried woman, of forty years and a dyspeptic, was seized, a few hours after having dined upon pork, with severe agony in the pit of the stomach. Her features were sharp, her complexion cadaverous; she shivered violently and her extremities were cold. The pulse were 120, her breathing short and quick. She retched occasionally, but brought up nothing but the liquids she had drank. Dr Elliotson gave her sixty drops of laudanum which was rejected, and this dose was repeated every twenty minutes, for four times, without relief. She was then bled twenty ounces, and upon taking afterwards the fifth dose was somewhat relieved.

Subsequently, there was no relief of symptoms, except of the intense pain in the stomach. She went on for three or four days, with the common symptoms of inflammatory action, for which the usual remedies were applied, and on the 4th died. It is to be remarked, that during this illness she preferred to quench her thirst, which was excessive, by draughts of water so hot, that no one but herself could hold the glass from which she drank it. Dr Elliotson, it appears, had anticipated the nature of the local difficulty.

' From the dreadful agony which was felt from the first; its sudden commencement, and that at the pit of the stomach, and its greater intensity there throughout the disease than in any other part of the abdomen; the ghastliness of the countenance and her icy coldness even when I first saw her; the absence of fulness and all hardness in the pulse, even during the evident existence of intense abdominal inflammation; and the rise of this at the epigastrium and its diffusion all over the abdomen, I apprehended the stomach was ruptured, and I very earnestly requested permission to examine the body. The inspection took place on Saturday morning.

' The abdomen was prodigiously distended, and, on opening the peritonæum, a large quantity of very fetid gas escaped. On the whole parietal portion of the peritoneum was a layer of fibrine, as also on the whole convex surface of the liver, the anterior surface of the stomach and of the omentum, and on much of the intestines. It was for the most part readily peeled off, but had effected adhesions between some portions of the small intestines, and between some portions of the peritonæum and omentum. A good deal of yellowish fluid with white flakes was collected in the upper part of the abdomen, such as is the mere product of inflammation, but I could discover no effusion of the contents of the stomach. In the anterior

part of the cardiac half of the stomach, a little below the small curvature, was a perfectly circular aperture, with a smooth edge, large enough to admit the end of the little finger, and the surrounding part was of a dark colour to some extent. The stomach contained a good deal of soft dark matter, which readily escaped on moving or pressing the organ. On examining the interior, a large ulcer was discovered, two inches in length, broad at one extremity and gradually narrower towards the other, with smooth edges, and the surrounding parts were greatly thickened, and very red and hard. The ulceration was gradually deeper from the narrow extremity to the other where the rupture had occurred.

‘I was informed that for several months she had been greatly troubled with dyspepsia, was observed to be continually putting her hand to the pit of the stomach, where she complained of an uneasiness which she was in the habit of relieving by copious draughts of hot water, and that she had lately grown thinner.

‘In an interesting paper on cases of this kind, published in the eighth volume of our transactions*, Mr Travers has stated the chief diagnostic symptoms to be, First, sudden, most acute, peculiar and unremitting pain, radiating from the pit of the stomach or navel to the circumference of the trunk and even to the limbs; Secondly, Coeval rigidity of the abdomen; and, Thirdly, A natural pulse for some hours, till the symptoms of peritonitis begin.

‘In this case, the pain did remit:—after the fifth dose of opium she became comparatively easy, and remained so for twenty-four hours. The rigidity of the abdomen did not strike me. The pulse was 120 from the first.

V. On a New Variety of Extra Uterine Pregnancy. By GILBERT BRESCHET, M. D.

‘It is agreed by modern anatomists,’ says M. Breschet, ‘that the product of generation passes from the ovary into the fallopian tube, before entering the uterus where it is to acquire its full development. The ovum, however, does not invariably follow this regular course, but may be impeded at some point in its passage; the pregnancy is then termed extra-uterine, and of this there are three varieties. In the first variety, *graviditas abdominalis*, or ventral pregnancy, the embryo is in the abdominal cavity, and its involucra form adhesions to the viscera and the peritoneum. In the second, *graviditas ovariana*, ovarian pregnancy, the foetus is developed in the ovary; and in the third, *graviditas tubaria*, or tubal pregnancy, the ovum does not pass the tube, but acquires a certain growth,

* The indefatigable pathologist, Dr. Abercrombie, of Edinburgh, has just published some cases of this kind that occurred to himself, with references to others in various authors. *Edinburgh Med. and Surg. Journal* Jan. 1824. A case that lately happened in the practice of the writer of one of the most original, laborious, and important pathological works ever published, M. Laennec, will be found in the *Revue Medicale*. Mars 1824.

varied by circumstances, in that canal. I am of opinion that a fourth species of extra-uterine pregnancy may be admitted, which I shall term, *Graviditas in Uteri substantia*. Of this, few cases have been recorded, but they are from authorities of weight. It is a case of this description which I have now the honour to submit to the Medical and Chirurgical Society, and it is the first which has been published in France or England.

' In this description of extra-uterine pregnancy, the foetus is enclosed in the parenchyma of the uterus itself, excepting that a cyst separates it from the substance of the viscus, as is the case in the instance of foreign bodies introduced into organic textures, and as is particularly observed in hydatids and some other Zoophytes. No communication exists between the cavity containing the foetus and the cavities of the abdomen or uterus. I have lately received from Drs Bellemain and Lartez, an anatomical preparation, illustrative of this species of extra-uterine pregnancy.

' Madame B., after experiencing the usual disagreeable feelings which accompany pregnancy, was attacked on the 10th June, 1823, with urgent vomiting and violent pain in the hypogastric region, extending to the rectum. She suffered also from frequent fits of fainting, and from a general sense of debility. The countenance and lips were pallid, and the pulse small. Rest was recommended, and an antispasmodic mixture prescribed. The abdomen, which had not at first indicated pain on pressure, now became exquisitely tender. On examination per vaginam, a well defined enlargement of the uterus was discovered without any development of the cervix. The patient stated that she was three months gone with child. Twenty leeches were applied to the abdomen, and a warm bath was directed to be used. All the bad symptoms increased, and on the 11th the patient died. Her medical attendants attributed her death to a sub-acute inflammation of the peritoneum, or to the rupture of a great blood vessel in the abdominal or pelvic cavity.

' On opening the abdomen, a considerable effusion of blood, partly liquid and partly coagulated, was discovered in the cavity of the pelvis. The uterus, although increased in size, had not risen above the brim of the pelvis, and at its fundus, towards the left side, was discovered a rupture which included the peritoneum and the cellular substance of the viscus, without establishing any communication between the cavities of the abdomen and the uterus, as was at first supposed. Through this rupture of the uterus, a foetus included within its membranes protruded. The drawing which accompanies this memoir, represents the preparation in question, in which the uterus, from five to six inches long, and four broad, presents a cavity of sufficient size to contain a hen's egg. In it were found some mucosity or albumen, and a membrane, which was certainly the membrana decidua of Hunter. The parietes of the uterus were sixteen to eighteen lines in thickness; consequently this organ was much larger than when unimpregnated. The ovaries were

healthy; the right fallopian tube was obliterated in its upper half, and the left tube in its whole extent. The most careful dissection could not detect its canal, nor could any liquid be forced through it by the syringe; but the lower orifice of the tube was preserved in the superior and left angle of the cavity of the uterus, and this cavity was much below the cavity containing the foetus. The cyst containing the foetus, was formed in the substance of the fundus of the uterus, above the insertion of the left fallopian tube. It was not lined by any membrane. In size it equalled an egg, and on its surface, which was very irregular, we observed the orifices of numerous vessels or uterine sinuses; and in these sinuses were seen some vascular threads or penicilli, forming the rudiments of the placenta. The partition dividing this cavity from the uterus, was half an inch thick, but the upper portion of its parietes, i. e. the part which corresponds with the fundus of the uterus, and on which the rupture took place, was only two lines thick. It was, however, evidently formed of two distinct parts, namely, the peritoneum, and the substance of the uterus. I make this remark, because some Physiologists are of opinion that in this species of extra-uterine pregnancy the ovum escapes, and lodges between the peritoneum and the uterus.

‘ We observed the formation of numerous vessels in the substance of the uterus, immediately surrounding the cyst, indicating great activity of circulation; no opening or communication existed between the cavity containing the foetus and the cavity of the uterus, properly so called.

‘ The foetus, with its involucra, was several inches long. The external surface of the chorion exhibited at a great many points, instead of a regular placenta, cotyledons, as it were, attached to the chorion by long pedicles. This arrangement resembles that of the ovum in ruminating animals, and one of these bundles of vascular penicilli, a species of cotyledon, was moreover employed in connecting the ovum with the mother.’

M. Breschet relates several other cases which have been recorded by other physiologists, and enters into a consideration of the various explanations which may be given of these phenomena.

The following he says are the results of the facts contained in his paper.

‘ 1st. That extra-uterine pregnancies may occur in the substance of the uterus itself.

‘ 2dly. That in this as in all the other varieties of extra-uterine pregnancy, gestation arrives slowly and with difficulty at the ordinary period, and I think, that in this variety, the ovum must experience more difficulty in its development, than when it is in the fallopian tube.

‘ 3dly. That, at a period difficult to determine, a rupture takes

place, accompanied with effusion of blood into the abdomen, and peath is the quick and inevitable consequence.

‘4. That the membrana decidua exists in the uterus before the arrival of the germ, since in all my observation this membrane was distinctly formed although the tubes were obliterated.

‘5. That the membrana decidua does not belong to the embryo, properly so called, and that it is not indispensable to the nutrition of the foetus.

‘6th. That the uterus may be developed, and its cavity enlarged without the presence of a foetus in the usual place.

‘7th. That the placenta is not always formed in the human species, so as to constitute an uniform mass or cake, but that it may be developed at different distinct points of the ovum in the form of vascular penicilli as is seen in ruminating animals. ‘The Solipeda for example.’ pp. 49, 50.

VI. *A Case of Fallopian Tube Pregnancy.* By JOHN ELLIOT- SON, M. D. Cantab., &c. &c.

In this case, pregnancy had existed seven or eight weeks, and the patient had died of hemorrhage, as was discovered in the dissection of the body, the account of which we quote.

‘On opening the abdomen, a quantity of bloody serum poured forth; and a large collection of coagula appeared, especially at the lower part. There was not the least appearance of inflammation, but, on the contrary, extreme paleness throughout.

‘In one of the many double handfuls of coagula emptied into a bowl from the lower part of the abdomen, something like a hydatid, equal in bulk to a middle-sized gooseberry, was seen, and, on a closer inspection, an embryo was discerned through the smooth transparent membranes which composed it. On putting the ovum into water, innumerable flocculi appeared all over its surface. A large number of fragments of Fallopian tube were also mixed with the coagula, and, to each of two opposite parts of the ovum, a fragment of the tube adhered.

‘The right Fallopian tube seemed broken off near its fimbriated extremity, though of course irregularly; but still its length rather exceeded that of the entire left. The lacerated portion and the scattered fragments were of a dark colour, but exceedingly firm, equally so as the rest of the tube and as the other tube. For the distance of an inch, the canal of the tube was pervious and ample; it then became contracted, and at length obliterated.

‘The corresponding ovary had a cell near its surface, filled with a red coagulum which was easily dislodged; and, around this cell, except at the part nearest the surface, was a quantity of yellow matter, making two-thirds of the substance of the ovary. The fimbriated extremity of the other tube was completely and

firmly grown to a nearly globular tumor, which was situated close to the left ovary and was internally of a deep red colour.

' The uterus was four inches and a quarter in length, and three inches at the fundus in breadth. The cervix and os uteri were filled with a colourless and translucent jelly-like matter, which also projected a little way from the latter into the vagina, in the form of a very large drop. In the cavity of the uterus was a beautiful decidua. It was about a quarter of an inch thick, and, on being brought into view, by cutting the body of the uterus from without, resembled the interior of a ripe fig, having a lilac colour, with minute spots of a deep purple: it was spongy, and of most delicate texture. Its inner surface was smooth and shining, and formed a cavity close and continuous at the beginning of the cervix. On examination of the inferior of the uterus three months afterwards, the parts having remained all the time in spirit, the decidua was of a dark red colour, extremely diminished in thickness, very dense, divided by many fissures in various directions, and not separable into layers; and at each corner, corresponding with the opening of the Fallopian tube, appeared a perfectly circular aperture, rather larger than merely sufficient to admit a bristle, and that on the unimpregnated side was obviously larger than the other.' p. 53—56.

VII. *On the Ligaments of the Human Ossicula Auditus.* By THOMAS WILLIAM CHEVALIER, Esq.

This paper appears to be important and interesting; but, from the omission in this volume to supply the plates referred to, it is impossible thoroughly to understand, and still more to analyze it.

VIII. *Observations on the Saliva during the action of Mercury upon the System.* By JOHN BOSTOCK, M.D. F.R.S. &c.

' In some experiments which I performed, many years ago, on the chemical constitution of the saliva, I announced the existence of two animal substances in this fluid; one of them, nearly, if not altogether, similar to albumen in its coagulated state, and the other resembling the uncoagulable matter of the serosity of the blood. The first of these substances is characterized by being united to a considerable quantity of water, yet insoluble in this fluid, not coagulated by heat, nor precipitated by the various chemical re-agents which act upon liquid albumen, but affected by nitric acid and by potash in the same manner with albumen when coagulated. The other animal ingredient in saliva is characterized by its not being acted upon by the various substances which coagulate or precipitate albumen, while it is precipitated by sub-acetate of lead, and by certain salts of tin and of silver.* This view of the nature of sali-

* Edin. Med. Journ. Vol. II. p. 43, 1806: also Med. Chir. Trans. Vol. IV. p. 76.

va I consider as being confirmed by many of my subsequent experiments in its more important parts, and, what is of still more consequence, it is sanctioned by the high authority of Berzelius, whose analysis may be considered as essentially coinciding with mine.*

'An opportunity having occurred of examining the state of the saliva while the system was under the influence of a violent mercurial action, it appeared desirable to ascertain how far the secretion was altered in its chemical properties. The quantity of fluid discharged was supposed to be about two quarts in the day, and all the other effects of the medicine, both local and constitutional, were proportionably severe.' pp. 73, 74.

The result of a chemical examination of this fluid are stated as follows :

'From these experiments we learn that the chemical constitution of the saliva was considerably different from its natural state, and that this difference consisted in its containing a quantity of animal matter, possessing properties similar to those of albumen in its uncoagulated state, or as it exists in the serum of the blood.' pp. 75, 76.

'The conclusions which we may draw from the above experiments, on the nature of the saliva discharged while the system is affected by the action of mercury, are sufficiently remarkable to arrest our attention. We learn from them, in the first place, that no portion of the mercury is actually present in the fluid, from which it follows that the effect of this medicine, although so remarkably manifested upon the salivary glands, must be produced through the medium of the system generally, and hence we may presume that all the organs destined for the secretion of mucus will undergo the same change. This change would appear to consist essentially in the conversion of the animal matter, from the state of a mucous to that of a serous, or rather of an albuminous fluid.'

'Now, although we are not sufficiently acquainted with the theory of secretion to know what are the minute operations which enable the capillary vessels connected with the glands to produce their appropriate fluids, yet we may form some idea of the relation which they bear to each other, as far, at least, as regards the greater or less complexity of the process. All those fluids, for example, which proceed from what are termed serous membranes, appear to differ from the serum of the blood solely in the proportion of albumen which they contain, and we may therefore conceive that they are generated by a process resembling transudation, and that this is, in a great measure, of a mechanical nature. In the secretions, however, which are discharged from the mucous surfaces we find a change effected which is of a chemical nature, where a new substance is generated, which did not previously exist in the blood. In what way the vital functions act, so as to convert albumen into the mucilaginous matter which forms the basis of saliva is at present

* Med. Chir. Trans. Vol. III. p. 246, and seq.

beyond our power to ascertain, but whatever it be, we find that in the case before us, the operation of mercury upon these parts is to counteract the ordinary secreting process, and to reduce the action of the glands to that of mere transudation.' p. 78—80.

IX. Case of Fungus Hæmatodes of the Brain. By JOHN HUNTER, Esq. JUN.

The following were the appearances of this case on dissection.

'The scalp was slightly œdematos. The bones of the cranium extraordinarily thin, and several short spicula projected inwards, from the posterior part of either parietal bone. The membranes covering the brain were free from disease; the substance of the cerebrum rather softer than usual; from eight to ten ounces of fluid in the ventricles; the membrane lining the ventricles of a dingy yellow colour. The thalami nervorum opticorum were somewhat enlarged, irregular on their surface, and entirely converted into the *fungous* disease. A longitudinal section through one of the thalami presented exactly the appearance of a portion of coagulated blood. The corpora striata were not affected, but the disease extended into the adjacent parts of the cerebrum and cerebellum below, and also to the lower and posterior edge of the falx major. The optic nerves were of a darker colour than usual, but did not appear to be altered in texture. The other cerebral nerves presented no deviation from their natural structure. The spinal marrow, as far as could be traced through the foramen magnum, was perfectly healthy. There were several sharp ridges of bone at the basis of the cranium, and the irregularities were all very strongly marked.' pp. 95, 96.

'The symptoms, exhibited in this case, had in them nothing peculiar. It began with violent headache, some affection of the senses, and a depraved state of the digestive functions. Convulsions followed, and the patient at length lost completely the senses of seeing, hearing, smelling and tasting, and was compelled to have recourse to that of touch as a means of communication with others. But the power of motion also was finally very much impaired, and she continued for some time in almost a mere vegetable state of existence.

X. On a New Preparation of Croton Tiglium. By the late JOHN POPE, Esq.

The object of Mr Pope is to recommend a new method of preparing the Croton tiglium, by which its efficiency as a cathartic is unimpaired, whilst its acrid and irritating qualities are obviated. These qualities, as he remarks, exist in the husk

or shell and the eye of the seed, the medulla being free from them. This is the part used by the natives in India, as an ordinary purgative. The oil prepared from this part of the seed may be given in substance, in pills or in tincture, and it is soluble in ether and in oil of turpentine.

Some remarks follow with regard to the peculiar acrid principle of the husk.

XI. Remarks on the Diagnosis and on the Inversion of the Foot, in Fracture of the Neck and upper part of the Thigh Bone.

By GEORGE JAMES GUTHRIE, Esq.

This seems to be a careful and accurate examination of a difficult subject; it could not be easily analyzed, and as we have not room for the whole we refer our readers to the work itself.

XII. On the Effects of Loss of Blood. By MARSHALL HALL, M.D. F.R.S. ED. ETC.

This interesting paper we intend inserting at length in another part of the Journal.

XIII. Cases in which the operation for the removal of Cicatrices from the Neck, consequent on burns, was successfully performed, with remarks. By J. H. JAMES.

Two cases are recorded by Mr James, in which, so far as they had proceeded, which was for some time after the healing of the wounds, every thing had gone on well.

‘If we may judge from present appearances,’ says he, ‘there is every probability that the cure will remain permanent in both these cases, and I see no reason for thinking they will contract again. In the first place, the old cicatrices had contracted to the utmost, before the operation was performed. The question is, will the new cicatrices contract? I cannot see why these should do so, otherwise than if they had been formed subsequently to the removal of tumours, or to any other breach of surface in the same situation. Such cicatrices do contract, but in most instances where the cause has not been a burn, the neighbouring integuments elongate so as to remedy this.’ pp. 157, 158.

‘From these cases it will appear that the objects I have had in view are, 1st. To make a good chin. 2d. To conceal the old cicatrix in that situation without removing it. 3d. After the parts have been relaxed by suppuration, to separate the chin from the sternum by the gradual but sure operation of the screw.’ p. 160.

XIV. Case of the Simultaneous Occurrence of Small-pox and Measles, with Remarks on Measles as it prevailed epidemically at Exeter in 1824. By PHILIP CHILWELL DELAGARDE.

Mr Delagarde's case was well marked and decisive. The measles as they prevailed in Exeter at the period in question had in them nothing peculiar except a strong tendency to subsequent pulmonary inflammation. We quote the following paragraphs as having some connexion with the subject of an article in a preceding part of the present number of this Journal.*

' The ordinary treatment consisted of small but frequently repeated doses of sulph. sodæ and antim. tart. If diarrhœa was excessive, nitre was substituted for the sodæ sulphas. When worms were suspected, or when fulness of habit was combined with costiveness, purgative doses of calomel were administered. Immersion of the feet in warm water was used more or less frequently, according to the violence of the pulmonary affection. Blisters were most strikingly beneficial, and were repeatedly applied on the chest and between the shoulders, until the pectoral symptoms were alleviated. In a few cases of unusual severity, mustard cataplasms to the feet were eminently serviceable, either in opposing inflammation of the lungs, or in rousing the system from extreme depression.

' Considerable perspiration, or a natural diarrhœa, restrained all unpleasant symptoms. Occasionally I tried phlebotomy, especially in adults. These cases succeeded, yet bleeding appeared but an inefficient treatment. A warm temperature and a rigid antiphlogistic regimen were carefully maintained.

' The mortality has been represented as very great: indeed I know that in one day seventeen children were buried in one church-yard.† Among the poor under my care, the deaths were not quite as one in twenty-five. It is to be observed, that the majority of fatal cases were not shown me until the eruption had disappeared, and the condition of the pulmonary organs was utterly hopeless. In the remainder, the treatment recommended was only partially adopted; or, as on enquiry I frequently discovered, spirits and other violent stimulants were administered. Of those cases, to which I was called before, or on the earliest appearance of, the efflorescence, the fatality did not exceed one in seventy. In families, on whose discretion I could rely, the complaint, although severe, was never uncontrollable. Several extraordinary cases presented themselves. Amongst these, two repetitions of measles. I have scarcely a doubt that these children had had the disorder before; for it was prevalent at the period when they were supposed to have had it, and others inhabiting the same house were infected. There is a very slight affection of measles, which it is generally believed will not

* See Dr Hayward's Paper on Measles, p. 10 of this number.

† In this city there are five church-yards, besides cemeteries for dissenters.

prevent a recurrence ; but these children had been visited by medical men of experience and ability, who declare their symptoms to have been highly characteristic. The complaint was not modified, as happens with small-pox after small-pox or vaccination. In each the fever was severe. This, I apprehend, corresponds with the result of experiments of inoculating with measles. pp. 164—166.

XV. History of a case of Hydrometra and Dry Gangrene occurring in the same individual, with some observations on these diseases. By ANTHONY TODD THOMSON, M.D. F.L.S.

In this case death followed amputation of the limb in which the gangrene had taken place, and on dissection, a swelling of the abdomen which had puzzled the medical attendants during life was found to have been produced by the uterus distended with eight quarts of fluid of a dark brown colour, and slightly coagulable by heat. The os uteri was completely obliterated.

XVI. Cases of Destructive Inflammation of the Eye, and of Suppurative Inflammation of the Integuments, occurring in the Puerperal State, and apparently from Constitutional Causes. By MARSHALL HALL, M.D. F.R.S. ED. and JOHN HIGGINBOTTOM, Esq.

The following is the general account of this inflammation, which is followed by several cases.

‘ The affection has occurred, in the cases to which we have alluded, from five to eleven days after delivery. It has always been preceded by some serious indisposition : in one case there were all the well-marked symptoms of intestinal irritation, and of exhaustion from uterine haemorrhagy ; in a second there was continued and protracted diarrhoea ; and in the others much fever, with derangement of the functions of the bowels. In one case the patient had been bled ; in another calomel had been freely given ; in a third opium ; and in a fourth the spt. terebinthinae. In these respects all the cases were dissimilar. In one remarkable circumstance, however, they all concurred ; the left eye, and not the right, was always the one affected. It may be remembered as a possible cause of this fact, if indeed it be not accidental, that patients are always delivered lying on the left side.

‘ In one case the eye was affected but a day or two, and but slightly, when the patient died. In two there was great chemosis, the transparency of the cornea was destroyed, and the eye appeared collapsed, during life ; and in a fourth the patient survived the ulceration and sloughing of the cornea, the total destruction of the organ, and the subsequent healing of its anterior part.

‘ Soon after the appearance of the disease in the eye, there has also appeared a local inflammation situated in the integuments, and

first observed on the hand, but found, on a careful examination, either at the same time, or soon afterwards, on the inferior as well as superior extremities. In one of the cases only, there was no such cutaneous inflammation; but the patient having been bled, there were inflammation and suppuration of the vein. In two of the cases the cutaneous inflammation was observed on the hands and feet, rather diffuse and a little elevated, but extremely tender to the touch; in the fourth, that in which the patient survived the loss of the eye, the patches of inflammation were very numerous and extensive, and led to equally numerous and extensive formations of pus.

'All remedies appeared to be unavailing. Early bleeding, mercury, and purgatives, and afterwards bark and opium, were fully tried without effect. The sinking of the vital powers alone appeared to suspend the course of this terrible disease.'

'From the preceding observations it may be conjectured that this morbid affection has a constitutional origin. This inference seems warranted by all the patients having previously experienced some indisposition, chiefly a deranged state of the function of the bowels, and by their all suffering from more than one local disease at the same time.'

'We have reserved the more particular description of the morbid appearances observed in the eye and in the integuments, to be detailed in the individual cases. Although these are only five in number, they present great variety. This variety appears chiefly to have arisen from the state of the vital powers, the morbid action in the part being influenced by the strength of the patient. Thus, in the patient who died soon after the appearance of the affection of the eye, the disease presented itself in a slight, although a very characteristic form; whilst in the patient who survived the total destruction of the organ, it pursued a regular progress, and assumed the most marked character.'

pp. 189—192.

XVII. *Case of Epilepsy, attended with remarkable slowness of the Pulse.* By WILLIAM BURNETT, M.D.

This was a case of disease, called epilepsy, which had in its course some peculiar symptoms. There seemed to have been great disturbance of the digestive organs, more particularly of the liver. The most remarkable circumstance, however, was the unusual slowness of the pulse, which were sometimes as unfrequent as fourteen, and very often from twenty to forty. Two cases, having some points of similarity, are introduced from Morgagni.

XVIII. *Some particulars of a remarkable Disease of the Heart, attended with partial Discolouration of the Skin.* By JAMES JOHNSON, M.D.

The symptoms, in this patient, a female, were a voracious

appetite, a gastric sinking, want of breath on exertion, defect of muscular strength, pulse so feeble they could hardly be felt at the wrist, paroxysms of distress which she called 'fits of heaving,' and which to Dr J. appeared allied to *globus hystericus*. They were attended with faintness, and once or twice with syncope. She had been thought in a nervous or hysterical way ever since the birth of her only child, seven years before. For 18 months she had been seriously worse, and among her other symptoms, all those parts of her skin, exposed to the air and light, had become of a dark mulatto colour.

'Every organ and structure in the body appeared in a state of the most perfect integrity, except the heart. The *right* ventricle of the heart was enlarged in its capacity, but its parietes were exceedingly extenuated, being not thicker, in any part, than the seventh or eighth of an inch. The parietes of the *left* ventricle, on the contrary, were full three quarters of an inch in thickness, and the capacity of this chamber was so much lessened that it would scarcely admit the fore-finger. There was nothing remarkable in the valves, or in the great vessels leading from the heart, with the exception of the *cava inferior*, which was of a most extraordinary size.' pp. 214, 215.

XIX. Case of Carotid Aneurism, successfully treated by tying the artery above the Aneurismal Tumour. By JAMES WARDROP, Esq.

The operation of tying an artery for aneurism on the farther side from the heart was suggested by Desault, as applicable to cases where the common operation could not be performed. It has, according to Mr Wardrop, been twice performed, once by Sir A. Cooper and each time unsuccessfully. The account of this case by Mr Wardrop is highly interesting and important.

XX. On the Medical Properties of the Subcarbonate of Iron. By JOHN ELLIOTSON, M.D. Cantab.

The principal object of this paper, is, to show the advantages of large doses of this preparation of iron in those diseases to which it is applicable. Dr E. has been in the habit of prescribing two, three, or four drachms at a dose, several times a day, and this without any inconvenience.

XXI. Notes of a Case of Hydrophobia, with some remarks on the Pathology of that disease. By GEORGE GREGORY, M.D.

In the symptoms of this case we believe there was nothing remarkable. The body on dissection exhibited the following appearances.

‘The spinal marrow throughout its whole extent was perfectly free of disease. There was some slight effusion of serum on the surface of the brain, and about three or four tea-spoonfuls of serum were contained within the ventricles. The choroid plexus was turgid with blood, and two very small soft tumors were found attached to it.

‘The stomach and bowels were in a healthy state. The lungs were of a remarkably dark colour, as if gorged with venous blood.* The whole body, it may be noticed, had become livid with remarkable rapidity, and to a very uncommon extent.

‘The pharynx, epiglottis, and larynx—the œsophagus, for about the first three inches of its course—and the trachea, throughout its whole extent, appeared internally of a coffee-ground colour, or almost black. This blackness remained after the parts had been freely sponged. There was no thickening or swelling of the parts about the glottis. The structures were firm, nor could I detect any breach of surface in the affected membrane. I have since been informed, however, that an abrasion of the cuticular lining of the membrane was noticed about half an inch below the pharynx.

‘The inner coat of the aorta, and large arteries immediately proceeding from it was of a bright scarlet colour. The heart and pericardium were healthy.’ pp. 259, 260.

XXII. Account of the Effects of the Bite of a Wild Jackal in a Rabid State, as the same occurred in the district of Kattywar in the East Indies, in 1822. By M. HEWITT, Esq. Surgeon, Bombay Medical Establishment.

Mr Hewitt relates five cases of hydrophobia, produced by the bite of a jackal, one of which was saved by effecting salivation, whilst the other four had scarcely any opportunity for receiving medical advice. We cannot avoid noticing, a strange idea which this writer seems to entertain, that local irritating applications to the mouth will have an effect in hastening salivation, e. g.

‘To bring a flow of saliva, and discharge from the salivary glands, a mixture of aqua ammoniæ, ol. oliv. and aq. pur. in the usual proportions to form a strong stimulating expectorant, was ordered to be given by tea-spoonfuls, which, it appears, was effected.’ p. 269.

* A gentleman present considered that the lungs were, in some parts, emphysematous.

SELECTIONS.

On the Effects of Loss of Blood. By MARSHALL HALL, M.D.
F.R.S. ED. ETC.

[From the Medico-Chirurgical Transactions.]

THE subject of the present essay appears to me to have escaped, in a great measure, the attention both of the physiologist and of the practical physician. The immediate effects of a sudden haemorrhagy or copious loss of blood are, indeed, sufficiently known; but I am not aware that any author has described with accuracy and distinctness the secondary or more remote effects of loss of blood, in the various circumstances of repetition or continued flow in which it may occur. And yet, when we reflect how often blood-letting is employed as a remedy, and how frequently haemorrhagy occurs as a disease, it must be considered of great moment, as well as interest, to trace the varied effects of a diminished quantity of blood on the different functions and organs of the animal frame.

This inquiry possesses a higher interest still, if, as I believe, and hope to explain in the ensuing observations, the more obvious effects of loss of blood are such as suggest the idea of increased power and energy of the system, and lead to an erroneous and dangerous employment of the lancet, when a directly opposite treatment is required. It is now several years since I began the investigation, the results of which I am about to detail. I had for some time contemplated an experimental inquiry, when several opportunities occurred to me, and one especially under extraordinary circumstances, of observing the effects of loss of blood in the human subject; and it will be readily apprehended how much more important it is to have observed the phenomena in question, in instances in which the mental affections and the sensations could be ascertained, as well as the changes in other functions, than merely to have noticed effects obvious to the eye alone.

In stating the results of my observations on the effects of loss of blood, I propose to adopt the following arrangement: I shall treat

I. Of the immediate effects of loss of blood, chiefly syncope, and of the re-action or failure of the vital powers.

II. Of the more remote or cumulative effects of repeated or protracted loss of blood.—or *exhaustion*: and 1. Of exhaus-

tion with excessive re-action ; 2. Of exhaustion with defective re-action ; 3. Of exhaustion with sinking.

III. Of the effects of further loss of blood in cases of exhaustion. 1. Of the substitution of syncope for re-action ; 2. Of the transition of the state of re-action into that of sinking ; 3. Of sudden dissolution.

IV. Of the influence of various circumstances on the effects of loss of blood. 1. Of age, &c. ; 2. Of disease.

V. Of the effects of loss of blood on the internal organs. 1. The brain ; 2. The heart ; 3. The lungs ; 4. The intestinal canal, &c.

I. Of the immediate effects of loss of blood, chiefly syncope, and of the re-action or failure of the vital powers.

The most familiar of the effects of loss of blood is syncope. The influence of posture, and the first sensations and appearances of the patient, in this state, appear to denote that the brain is the organ, the function of which is first impaired ; the respiration suffers as an immediate consequence ; and the action of the heart becomes enfeebled, first from a deficient quantity of blood, and secondly from its deficient arterialization. The capillary circulation also suffers, and if the state of syncope be long continued, the stomach and bowels become affected. In ordinary syncope from loss of blood, the patient first experiences a degree of vertigo, to which loss of consciousness succeeds. The respiration is affected in proportion to the degree of insensibility, being suspended until the painful sensation produced rouses the patient to draw deep and repeated sighs, and again becoming suspended as before. The beat of the heart and of the pulse is slow and weak ; the face and general surface become pale, cool, and bedewed with perspiration ; the stomach is apt to be affected with eructation or sickness. On recovery there is perhaps a momentary delirium, yawning, and a return of consciousness ; irregular breathing in sighs, and a gradual recovery of the pulse.

In cases of profuse hæmorrhagy the state of the patient varies : there is at one moment a degree of syncope, then a partial recovery. During the syncope the countenance is extremely pallid ; there is more or less insensibility ; the respiratory movements of the thorax are at one period imperceptible, and then there are irregular sighs ; the pulse is slow, feeble, or not to be distinguished ; the extremities are cold, and the stomach is frequently affected with sickness. I have observed that when the movements of the chest, in the interval between the sighs, have been imperceptible or nearly so, the respiration has still been carried on by means of the diaphragm. It may

also be remarked that the state of syncope is often relieved, for a time, by an attack of sickness and vomiting; immediately after which the patient expresses himself as feeling better; the countenance is somewhat improved, the breathing more natural, and the pulse stronger and more frequent.

In cases of fatal haemorrhagy there are none of these ameliorations. The symptoms gradually and progressively assume a more and more frightful aspect. The countenance does not improve, but becomes pale and sunk; the consciousness sometimes remains until towards the last, when there is some delirium, but every thing denotes an impaired state of the energies of the brain. The breathing becomes stertorous, and at length gasping. The pulse is extremely feeble or even imperceptible. Animal heat fails, and the extremities become colder and colder in spite of every kind of external warmth; the voice may be strong, but there is constant restlessness and jactitation. Ultimately the strength fails, and the patient sinks, gasps, and expires.

From the state of syncope the system usually recovers itself spontaneously, if the cause by which the syncope was induced be discontinued. The principle by means of which this recovery is effected, may, without involving any hypothesis, be denominated *re-action*. This re-action of the system may, under different circumstances, be excessive or defective, or it may be destroyed altogether, each state leading to a corresponding series of phenomena. The description of these varied phenomena is reserved for the ensuing section. Previously however to leaving this part of our subject, it may be proper to notice that the brain is sometimes affected by loss of blood in a very different manner, and, instead of syncope, there are attacks of convulsion. Dr Kellie observes that 'fits resembling apoplexy and epilepsy, as well as fits of syncope, occasionally supervene to venesection at the arm;*' and Dr Armstrong states that 'bleeding to syncope in young children may sometimes lead even to fatal convulsions.'†

II. Of the more remote or cumulative effects of repeated or protracted loss of blood, or Exhaustion.

The re-action or recovery from ordinary syncope is generally a simple return to a healthy state of the functions or nearly so, the pulse not passing beyond its natural frequency. In cases of profuse loss of blood, on the contrary, the recovery is not quite so uniform, and the pulse acquires and retains a mor-

* Edinb. Med. Chir. Trans. Vol. I. p. 105.

† On Puerperal Fever. 2d edit. p. 191.

bid frequency for a certain length of time; this frequency of the pulse gradually subsides, however, and is unattended by any other symptom of indisposition of any consequence. The phenomena are very different, if, instead of one full bleeding to syncope, or of a profuse haemorrhagy, and even protracted syncope, the person be subjected to repeated blood-lettings or to a continued drain. In this case, within certain limits, the pulse, instead of being slow and feeble, acquires a morbid frequency and a throbbing beat, and there are, in some instances, all the symptoms of excessive re-action of the system, which it is my object now to describe.

The state of excessive re-action is formed gradually, and consists, at first, in forcible beating of the pulse, of the carotids and of the heart, accompanied by a sense of throbbing in the head, of palpitation of the heart, and eventually perhaps of beating or throbbing in the scrobiculus cordis, and in the course of the aorta. This state of re-action is augmented occasionally by a turbulent dream, mental agitation, or bodily exertion. At other times it is modified by a temporary faintness or syncope. In the more exquisite cases of excessive re-action the symptoms are still more strongly marked. The beating of the temples is now accompanied by a throbbing pain of the head, and the energies and sensibilities of the brain are morbidly augmented. Sometimes there is intolerance of light, but still more frequently intolerance of noise and disturbances of any kind, requiring stillness to be strictly enjoined, the knockers to be tied, and straw to be strewed along the pavement. The sleep is agitated and disturbed by fearful dreams, and the patient is liable to awake in a state of great hurry of mind, sometimes almost approaching to delirium. In general this is slight, but occasionally severe and even continued. More frequently there are great noises in the head, as of singing, of crackers, of a storm, or of a cataract; in some instances flashes of light are seen. Sometimes there is a sense of great pressure or tightness in one part or round the head, as if the skull were pressed by an iron nail, or bound by an iron hoop.

The action of the heart and arteries is morbidly increased, and there occur great palpitation, and visible throbbing of the carotids, and sometimes even of the abdominal aorta, augmented to a still greater degree, by every hurry of mind or exertion of the body, by sudden noises or hurried dreams and wakings. The patient is often greatly alarmed and impressed with the feeling of approaching dissolution. The state of palpitation and throbbing are apt to change, at different times, into

a feeling of syncope. The effect of sleep is in some instances very extraordinary; sometimes palpitation, at other times a degree of syncope, or an overwhelming feeling of dissolution. The pulse varies from 100 to 120 or 130, and is attended with a forcible jerk or bounding of the artery.

The respiration is apt to be frequent and hurried, and attended with alternate panting and sighing; the movement of expiration is sometimes obviously and singularly blended with a movement communicated by the beat of the heart; the patient requires the smelling bottle, the fan, and fresh air. In this state of exhaustion, sudden dissolution has sometimes been the immediate consequence of muscular effort on the part of the patient.

The phenomena of excessive re-action are mostly observed in young persons of robust constitution, who have been subjected to repeated blood-letting. In infants, in feeble persons, and in rather advanced years, re-action after loss of blood is for the most part defective. In this case the patient long remains pale, thin and feeble, and becomes faint on the slightest occasions; the pulse is frequent, but feeble and perhaps irregular, and we look in vain for the throbbing and palpitation observed in the young and robust. This state either gradually yields to returning strength, or subsides into the state of sinking. In the study of the effects of loss of blood it is particularly necessary to bear in mind this difference of the phenomena arising out of the previous state of the constitution, whether of vigour, or of feebleness.

The symptoms of *exhaustion with excessive re-action* may gradually subside, and leave the patient feeble, but with returning health, or they may yield to the state of *sinking*. This term is adopted, not to express a state of negative weakness merely, which may continue long and terminate in eventual recovery, but to denote a state of positive and progressive failure of the vital powers, attended by its peculiar effects, and by a set of phenomena very different from those of exhaustion with re-action. In the latter the energies of the system were augmented; in the former the functions of the brain, the lungs, and the heart are singularly impaired.

The sensibilities of the brain subside, and the patient is no longer affected by noise as before. There is, on the contrary, a tendency to dozing, and gradually some of those effects on the muscular system, which denote a diminished sensibility of the brain, supervene, as snoring, stertor, blowing up of the cheeks in breathing, &c.; instead of the hurry and alarm on

awaking, as observed in the case of excessive re-action. The patient in the state of sinking requires a moment to recollect himself and recover his consciousness, is perhaps affected with slight delirium, forgets the circumstances of his situation, and, inattentive to objects around him, falls again into a state of dozing.

Not less remarkable is the effect of the state of exhaustion with sinking on the functions of the lungs. Indeed the very earliest indication of this state is, I believe, a crepitus in respiration, only to be heard at first on the most attentive listening. This crepitus gradually becomes more audible, and passes into slight rattling, heard in the situation of the bronchia and trachea. There is also a degree of labour or oppression in the breathing, inducing acuteness in the nostrils, which are dilated below, and drawn in above the lobes at each inspiration; in some cases there is besides, a peculiar catching laryngal cough, which is especially apt to come on during sleep, awaking the patient. The heart has, at the same time, lost its violent beat and palpitation, and the arteries their bounding or throbbing. The stomach and bowels become disordered and flatulent, and the command over the sphincters is impaired. The last stage of sinking is denoted by a pale and sunk countenance, inquietude, jactitation, delirium, and coldness of the extremities.*

* I have already described, in a cursory manner, some of the effects of loss of blood, in two recent publications; the first in 1820, entitled 'Cases of a Serious Morbid Affection arising from irritation and exhaustion'; the other in 1822, 'An Essay on the Symptoms and History of Diseases,' see chap. v. Since these periods I have seen several allusions to this important subject, and one especially by Mr Cooke, in his useful and able abridgement of Morgagni. The observations of this author are highly valuable, and they have been confirmed by Dr Kellie,* and, as far as the *symptoms* go, by myself.

Mr Cooke observes, 'after uterine haemorrhage, and also after copious depletion on account of pulmonary and other inflammations, I have frequently observed the symptoms of cerebral congestion, and which has generally appeared to arise from the excitement occasioned by some mental effort, though occasionally it has arisen without an evident cause. Whilst the other parts of the body appear comparatively bloodless, the vessels of the head throb violently; there is severe pain; confusion of intellect sometimes to such a degree as to threaten delirium; the pulse at the wrist is usually small and vibrating, and the countenance distressed. When I first observed these symptoms I was led to abstract blood, from an apprehension of phrenitis, but I did harm, for, if the urgency of symptoms was diminished, the susceptibility to a recurrence was increased, and restoration to health protracted. The liability to this form of cerebral plethora has appeared to me to be proportionate to the preceding hemorrhage and the consequent debility. If, in this condition, an intrusive visitor be admitted to converse, though but for a short time, with the patient, or if the patient attempt to read, or in any other way to employ the mental faculties beyond what is perfectly easy, or if the mind be agitated, this state of the head will almost inevitably be induced. It may, however, be brought on by all those causes which tend to destroy the equilibrium of circulation, and none

The symptoms of exhaustion, first with re-action, but gradually passing into the state of sinking, are exemplified in a remarkable manner in the following case, the circumstances of which were more accurately noticed as they occurred in the person of a much respected friend and intelligent member of the profession, and principally under my own roof.

CASE I.

Mr. C. C. aged forty, of an extremely muscular and robust make, was returning from Nottingham into the country on the 3d of October 1821, when his horse reared, and fell backwards upon him, fracturing the third and fourth ribs of the left side. He was taken to an inn, and I saw him with a surgeon early on the following morning. He then suffered extreme pain of the side; there was a distinct crepitus but no emphysema; the face was somewhat bruised, swollen, and ecchymosed; the pulse was 100, and strong. Sixteen ounces of blood were taken from the arm, a dozen leeches were applied to the temples, and the same number over the fracture of the ribs; the motions of the chest were restrained by a tight

are more likely in this condition of the patient than noise in the room, deficiency of sleep, improper food, a constipated state of the bowels, or a morbid state of the secretions into them. This susceptibility to local congestion after excessive loss of blood, I presume depends upon the want of that due balance which, in a state of health, subsists between the nervous and vascular systems; but I am jealous of hypotheses in medicine, and to pursue them in the present work would be unwarrantable.' vol. 1. p. 73.

' From the peculiarity of the conformation of the nose, epistaxis is sometimes a most uncontrollable form of hemorrhage. I have recently seen two cases in which, if it were not absolutely the occasion of death, it certainly accelerated that event. The first was in a gentleman who laboured under hydrocephalus. He was a susceptible man, and would not endure a plug in the nostril. The hemorrhage frequently occurred; and when he had become excessively pallid from loss of blood, it was curious to observe to what an extent the irritative hemorrhagic action was propagated. At first he only distinguished pulsation in and about the nose, but as his strength decreased, and his anxiety and susceptibility were heightened, the carotids could be seen throbbing vehemently, and a corresponding action was perceptible to the patient through their ramifications. The second case was in an old arthritic sufferer, who had been seized with cynanche parotidæa. The more acute inflammation had subsided, but the gland was much enlarged and indurated, and the jaw nearly rigid. In this state he was attacked with bleeding from the nose. It occurred sometimes when he was asleep, on which occasions he was threatened with suffocation from the formation of coagula in the fauces, which he removed with the utmost difficulty in consequence of being unable to open his mouth. The hemorrhage commenced in the nasal cavity nearest to the enlarged gland, but it afterwards took place from both nostrils. He was excessively afflicted with gout, and had indications of hepatic disorganization, but the immediate cause of death was the repeated effusion of blood. The hemorrhagic action was not so extensively manifest as in the preceding case, but when there was feebleness in the radial artery and the extremities were cold, the patient was conscious of a strongly irritative throbbing in the arteries ramifying through the nose and circumjacent parts.' vol. 1. p. 110.

bandage; calomel and purging medicines were freely given. At noon sixteen ounces of blood were again drawn from the arm, and a surcingle was applied round the chest.

During the whole of the 5th of October, the second day after the accident, Mr C. appeared to be going on well, but at night a violent attack of pain of the side induced him to bleed himself; this was done to syncope, and as a large wash-hand-basin was used to receive the blood, its quantity was not known, but must have been very considerable. Seventeen leeches were then applied to the side and shoulder, with great relief. The surcingle, which had been removed, was re-applied, and the mercury and purgatives were continued. Early on the morning of the third day, there was another violent attack of pain of the side with dyspnoea; a messenger was despatched for the medical attendants, but before their arrival Mr C. had again bled himself, and taken away sixteen ounces of blood, unable to endure the pain. In another hour eight ounces more were drawn, the patient sitting upright; this was followed by syncope and great relief of pain.

On the fourth day, Mr C. was removed a distance of about one mile to my house, and bore the journey on a litter extremely well, having previously lost a teacupfull of blood; he expressed himself as feeling better than at any time since the accident. In the evening an increase of pain took place, and about seven ounces of blood were taken with great relief. In all it would appear that Mr C. lost at least one hundred and twenty ounces of blood.

On the fifth day we were joined in consultation by an eminent physician and surgeon. There was much pain of the side, and it was at first proposed to take away more blood; but I had observed some of the symptoms which I knew to indicate re-action from exhaustion, and the venesection was omitted.

On the sixth day, the following circumstances were noticed. There was some degree of dyspnoea and of pain in the side, and the patient had removed the surcingle in the hope of obtaining relief; the mouth was affected with ptyalism. The pulse was 100, and had acquired a peculiar jerk; there was violent throbbing of the carotids, a pulsatory pain of the head, intolerance of noise, and, in a slight degree, of light; at one time in the morning of this day great agitation had been induced by a knock at the door. On account of the intolerance of sound, the pavement was directed to be strewed with straw, and the ringing of the bells of the adjacent church discontinued.

ued. The bowels were freely moved: a draught, with *tinctura opii* and *spiritus ammoniæ aromaticus*, was given, with broth, arrow-root, sago, &c.

Seventh day.—The patient was rather better towards evening yesterday. All the symptoms of strong re-action continued as before. The head has been much relieved by the application of a cold lotion.

On the succeeding day the pulse was 34 only, and had lost, in some degree, its peculiar jerk; the carotids beat less violently; the head was so much better as to render the lotion unnecessary; there was more tranquillity and some hilarity of mind. The aperients, the anodyne, and the nourishment were continued.

I saw my patient about 3 o'clock a. m. on the ninth day, and I then heard the slightest degree of that crepitus in the breathing which I have already noticed as one of the first symptoms of sinking. The medical gentlemen met at nine, and the general symptoms were then so little changed that no degree of alarm was excited in their minds. I mentioned my fears, and the grounds on which they were formed. At this meeting cupping was proposed; but the changes in the patient were afterwards so rapid that brandy was recommended in the evening. The pulse was 110, in the middle of the day, unattended by its previous force and jerk, and easily compressible; the beating of the carotids had subsided; a slight degree of stupor was observed; on being left undisturbed the patient fell asleep and snored; there was some labour in the respiration, and a troublesome, dry, laryngal cough; although the bandage was loose, there was no pain of the side of the chest; the countenance was anxious. The symptoms assumed a more alarming form during the day; at night there was considerable stupor, and, when the patient was roused, a degree of delirium; during this sleep there was much snoring and puffing up of the cheeks in expiration. On awaking he would feel greatly concerned that he should have appeared to blow in your face. There was much flatulence; the motions were extremely offensive, and passed at each attempt to void urine.

From midnight he could scarcely be roused, but if awoke he would speak collectedly, but in a hurried manner, and said he felt 'such a dying feel.' The pulse was about 120. At three o'clock a. m. I saw my patient; there was little change in the pulse or other symptoms, but in a minute or two the pulse became slow, feeble and irregular, he altered rapidly, and I found that he was moribund; in a few minutes more he expired.

On dissection the pleura was found morbidly red in the vi-

cinity of the fracture, but not wounded ; there was some effusion of lymph in its cavity. The right lung was found united to its contiguous pleura by old adhesions.

CASE II.

Mrs Burrows, aged twenty-eight, of a stout constitution. After delivery there was uterine haemorrhagy, which continued to recur for the twelve subsequent months. It was then discovered that Mrs Burrows laboured under polypus uteri. A ligature was applied, purgative medicines given, and the patient presently recovered. The case is introduced in this place in order to present the detail of symptoms arising from a *continued drain* or loss of blood. There were, 1. beating of the temples, a sense of 'knocking' in the head, vertigo, dimness of sight, singing in the ears, terrific dreams, and starting from sleep. 2. Frequency of the pulse, pulsation of the carotids and aorta, fluttering and beating of the heart, faintishness, and a sense and fear of dissolution. The palpitation of the heart on awaking was sometimes such as to move the bed-clothes, the bed, and, it is said, even the door. 3. The breathing was short and hurried, sometimes with panting, sometimes with sighing. 4. There were urgent calls for air, for opened windows, and the smelling-bottle ; and the nostrils and temples were required to be bathed with sal-volatile or vinegar.

The countenance, prolabia, and tongue were pallid ; the legs somewhat oedematous ; the bowels were irregular, the secretions morbid. Once there was obstinate constipation ; frequently the bowels were merely confined, sometimes with sickness, but always with an increase of all the symptoms.

It would be difficult, perhaps, to offer any observations on the nature and cause of excessive re-action ; but it is plain that the state of sinking involves a greatly impaired state of the functions of all the vital organs, and especially of the brain, from defective stimulus. The tendency to dozing, the snoring and stertor, the imperfect respiration, the impaired action of the sphincters, the defective action of the lungs, and the accumulation of the secretions of the bronchia, the feeble and hurried beat of the heart and pulse, the disordered state of the secretions of the stomach and bowels, and the evolution of flatus, all denote an impaired condition of the nervous energy. The state of sinking may, indeed, in certain points of view, be compared with the state of the functions in apoplexy, and with the effects observed on abstracting the influence of the brain and

spinal marrow by dividing the eighth pair of nerves, or destroying the lower portion of the latter organ.*

III. On the effects of further loss of blood in cases of exhaustion.

The symptoms of exhaustion with re-action have, I am persuaded, frequently been mistaken for those of *inflammation*, or other disease of the *head* or of the *heart*. Under this impression recourse has frequently been had to the further detraction of blood by the lancet, and the effect of this practice is such as greatly to impose upon the inexperienced, for all the symptoms are perhaps fully relieved. It was some time before I could fully comprehend the nature of this fact. I had satisfied myself that, in certain cases, the symptoms were those of loss of blood, and yet it appeared no less certain that those very symptoms were relieved by the lancet. At length I discovered, by careful observation, that the symptoms which were relieved were those of re-action, and the mode of relief the substitution of *syncope*; that the relief endured as long as the state of faintishness continued, but returned as this state gave way to the rallying and re-action of the vital powers.

Another circumstance, equally interesting and curious, is, that within certain limits the remedy which relieves for a time, eventually only adds to the severity of the malady, which is apt to return after a certain period in a still more aggravated form. It is natural, indeed, to suppose that, unless where there is a tendency to failure of the vital powers, the re-action of the system and the painful circumstances attending it, would be greater after a third or fourth loss of blood, than after a first or second. Indeed there are seldom symptoms of re-action after one flow of blood, however great or profuse. The repetition or protraction of the cause is essential to produce this effect. It is observable, too, that in cases of exhaustion with re-action, *syncope* is very soon produced by the further loss of blood. This fact is of importance, because it may be regarded as a sign of the state of exhaustion when obscured by the re-action of the system, and as a warning voice against the further and inconsiderate use of the lancet.

If the loss of blood be repeated still further, not only *syncope*, but a state of sinking is induced; the effects of re-action are, of course, in this case, permanently relieved; whilst a different series of phenomena, already fully described, is established. This transition of re-action into sinking may either be spontaneous, as in the case of Mr C. C. detailed in the pre-

* See Dr. Phillip's work on 'The Vital Functions,' *passim*.

ceding section ; or it may be the effect of a last bleeding, the state of syncope scarcely ceasing, with a total though gradual failure of the vital powers. These facts are illustrated by the following cases.

CASE III.

Mrs Darker, aged twenty-one, of a rather feeble constitution, was confined of her first child. On the fifth day, the bowels having been constipated, she became much indisposed with flushing of the countenance, noise in the ears, as of a rushing wind or the explosion of crackers, flashes of light on lying down, beating of the carotids, &c. the pulse being 120 in a minute. Fourteen ounces of blood were taken from the arm, which induced *deliquium* with *relief* to the symptoms. About seven hours afterwards the noises in the head returned, and the pulse was 120 ; twelve ounces of blood were again drawn, and the patient again fainted. Eight ounces of blood were taken the next day. Early on the succeeding morning, the medical attendant was called ; there had been little sleep, but much lowness for several hours ; the patient then complained of violent beating in the head ; the pulse was 120. A teacupfull of blood was taken, which induced *faintishness and abated the beating of the head*. By noon she was again flushed, and the beating had returned in an aggravated degree. From this period the patient was bled no more, but recovered under the influence of aperient and anodyne remedies.

CASE IV.

Mrs. D., aged thirty-five, was confined in June, 1818. The expulsion of the placenta was followed by much haemorrhagy, which induced great exhaustion. On the tenth day, she was seized with severe shivering, heat, throbbing pain of the head, and intolerance of light and sound. Ten ounces of blood were taken from the arm, about ten o'clock, a. m., which induced *faintishness and gave relief*. At seven o'clock in the evening, the pain of the head was as severe as ever, and twelve ounces of blood were taken from the arm. This was followed by dreadful faintness, and gasping breathing, so as even to lead to the apprehension of dissolution. On recovering, the pain and intolerance of light and sound returned as before. This patient became affected with all the symptoms of exhaustion with re-action, but gradually recovered without further venesection.

When the last bleeding has been considerable, it has, in some

cases, been followed by the most dreadful gaspings and other convulsive motions, and death. It should be observed that between the most gradual sinking and the most sudden dissolution, as the effects of blood-letting, there is every intermediate shade, with the phenomena of which it is of the utmost importance to be acquainted. These varied phenomena may, I think, be collected from the observations which have been made in this and the preceding sections. They are further illustrated by the following cases which exemplify the fatal effects of loss of blood, as they supervene *more or less* gradually upon the use of the lancet.

CASE V.

Mrs ——, aged thirty, had been affected with a slight attack of influenza. She was seized with rigor, and soon afterwards the pains of labour came on. Delivery was affected in about fifteen hours, at nine o'clock, a. m., which was followed by much fever, the countenance being flushed, the pulse frequent, and the breathing difficult, with incessant cough. These symptoms increased towards evening and in the night, and about forty ounces of blood were drawn from the arm at two blood-lettings. The next morning twelve leeches were applied to the chest, with great relief. In the evening a blister was applied. The night was passed more comfortably: she dozed a little, and was cheerful, and continued relieved in the morning. As a preventive against a relapse, however, three tea-cup-fulls of blood were taken. The patient became faint during the flow of the blood, sank from that time, and never again rallied. She became extremely feeble, and could scarcely articulate, and, from being cheerful the day before, was now impressed with the conviction of approaching dissolution, and expressed herself as unable to recover from the last bleeding. During this day, Saturday, and the two succeeding days, there was a state of extreme exhaustion, and still a sense of load at the chest, and pain of the side. On Tuesday the countenance was observed sometimes to flush to a deep scarlet, and then to become quite pallid, while a profuse perspiration frequently ran down the face. The pulse was extremely frequent, and the pain severe on coughing; there was no delirium, though she awoke hurried from sleeps which she described as 'just like death.' During the four following days there was little obvious change; distressing faintings usually came on about two or three o'clock, p. m. On Sunday she became drowsy and evidently sinking, and she died in the evening of the succeeding day.

CASE VI.

Mrs V., was of a pale sallow complexion, and weakly constitution. Six days before her confinement of her first child, she was awaked in the night by severe pain of the head confined to one spot. This pain continued several hours, when Mrs V. applied to her medical man. She was completely relieved by losing sixteen ounces of blood, followed by purgative medicine, and she continued well. Mrs V.'s labour occurred on the 1st of September, 1817, and was rather tedious, but natural, and she had no complaint until the second day, when she experienced a second attack of pain in the head, but less violent than the previous one. She was seen six hours after this attack ; she then complained of pain and beating of the head, about the anterior part of the right parietal bone ; the skin was hot, and the pulse frequent and strong. Sixteen ounces of blood were taken from the arm, leeches were ordered to be applied to the temples, and an enema and purgative medicine were prescribed. In three hours' time Mrs V. was again visited, and it was deemed necessary to abstract more blood. Six or eight ounces were therefore taken ; faintishness was induced, and the symptoms were abated. On the succeeding morning, September the 4th, the symptoms still remained the same ; the surface was hot ; the bowels had been purged, and the evacuations were natural ; the saline mixture was ordered. At noon the purgative medicine was repeated and a blister was applied. In the evening, the evacuation of the bowels was satisfactory ; the pain of the head was not severe, but there was much beating, and a rushing noise, with restlessness and a teasing irritative cough. A draught, with thirty drops of the *tinctura opii*, was administered. The next morning, September the 5th, Mrs V. expressed herself as feeling much better, having enjoyed comfortable sleep. The surface was still hot, and the head affected as before. In the evening there was a degree of tenderness in the region of the uterus. She dreaded the idea of being bled, from the faintishness she had before experienced from it, and said it would certainly kill her. On the morning of the 6th, the pain in the region of the uterus was relieved, but the head remained as before ; the window was kept open for want of air. In the evening Mrs V. complained of being faint and low. A mixture with camphor and sulphuric æther was prescribed. On the 7th the irritative cough again occurred ; the pulse was frequent, from 120 to 130 ; and the other symptoms remained unabated.

A physician was consulted. Sixteen ounces of blood were

directed to be taken from the arm ; a grain of calomel was given every three hours, and the effervescing medicine was ordered. On the morning of the 8th, Mrs V. appeared to be relieved in every respect ; the heat of surface and the pain of the head were diminished ; the blood presented the buffy coat. It was thought proper to abstract more blood, as the last bleeding had apparently conferred benefit, and had been borne better than the preceding ones. Four tea-cupfulls of blood were taken. The most dreadful faintings followed, with gasping, open mouth, and a convulsive action of the diaphragm ; and in an hour or two death closed the scene.

IV. Of the influence of various circumstances on the effects of loss of blood.

The first and principal circumstance which modifies the effects of loss of blood has reference to the *strength* of the patient. *Cæteris paribus*, the degree of re-action is proportionate to the degree of strength. In infancy, in declining years, and in those of feeble constitution, there is *defective re-action* after loss of blood, the phenomena of which have been already detailed. The state of syncope is then a state of danger, and a second or third blood-letting is borne with difficulty. In youth, and in the vigorous and robust, on the contrary, the re-action is strong, and especially marked after repeated venesectiōns. In the strong, the state of sinking is even preceded by that of *great re-action*, unless indeed the strength be overwhelmed by the degree or early repetition of the evacuation. In the feeble it steals on insidiously and gradually, unmarked by re-action of the system.

The other circumstances which exert an influence on the effects of loss of blood, are certain states of disease. And I must, in this place, particularly remark, that the state of intestinal irritation leads to those effects of blood-letting which I have described as exhaustion ; whilst inflammation seems to protect the system from the effects of loss of blood. In the former case throbbing is soon induced, unless indeed it be prevented by a state more nearly allied to syncope ; in the latter, blood-letting is followed by little of re-action until the state of inflammation be subdued, and the system freely exposed to the uncontroled influence of loss of blood. In the former there is danger from full depletion ; in the latter, this measure is providentially not less safe than necessary.

In all cases we are only to expect the phenomena of re-action where a *certain quantity* of blood has been lost. One

bleeding, although large, and even a continued drain, if not considerable, will not induce exhaustion, the powers of the system being sufficiently great to *recruit* and to *restrain* its actions. But exhaustion is sooner induced under circumstances of intestinal irritation, and less so under those of inflammation than in health; and re-action is the consequence, unless the strength of the patient be low, and then it is defective, or even gives way to a state of positive sinking. Each successive blood-letting is of course attended with increasing risk. There is considerable danger where the re-action is strong; still greater when it is feeble. A large blood-letting in such cases may be followed by sudden death. There is great danger when fainting has been several times induced, and where there is the least tendency to 'want of air.'

V. On the effects of loss of blood on the internal organs.

We are altogether in want of a series of observations on the effects of loss of blood on the internal organs. There is, I think, reason to suppose that a state of exhaustion from loss of blood may lead to effusion into the ventricles of the brain; and a case* published by the late Dr Denman sufficiently proves that such a state of exhaustion is no protection against an attack of apoplexy. From these circumstances we may conclude that there is, even in cases of exhaustion from loss of blood, increased action or fulness of the vessels of the brain.

The morbid state of the secretory function of the lungs in exhaustion with sinking has already been mentioned, and there is no question that, in protracted cases of this nature, the bronchia must become clogged, and the arterialization of the blood impeded. The state of flatulency, and the foetid evacuations of the intestines, sufficiently denote the morbid condition of this internal organ. There is also, in extreme cases of exhaustion, a general tendency to serous effusion, both into the internal cavities and into the cellular membrane. This effect of the loss of blood has been very long remarked by medical writers.

As I have carefully avoided, in this essay, the statement of any circumstances which I did not think amply substantiated by well-observed facts, I shall leave this part of my subject to be elucidated by future observation. I still have it in view to investigate the *organic effects*, and especially the *remedies* of loss of blood, by a series of experiments.

* Transactions of a Society for the Improvement of Medical and Surgical Knowledge, Vol. III. p. 315.

INTELLIGENCE.

Impure Tartarized Antimony.—Our readers are aware, that in the preparation of tartarized antimony, the liquor in which the ingredients are mixed should only be subjected to evaporation until crystals (that is, the crystals of ant. tart.) begin to form. From the following communication, however, (*addressed to the Editor of the Lond. Journ. of Science,*) there is reason to believe that this process is often carried much further by the manufacturer, and that the whole of the ingredients contained in the liquor are ultimately mixed together, and sold in the shops as pure tartar emetic—a circumstance which if true to any extent, will go far to account for the contradictory statements which sometimes appear with respect to the medical effects of this article:—

‘Having repeatedly noticed a portion of insoluble matter in making the *vinum antimonii tartarizati*, I purchased some tartar emetic in *crystals*, and much to my astonishment was charged nearly double what I had previously paid for it in *powder*. I procured samples from several respectable druggists, and found in all cases the same inconsistency in price. Upon careful examination, however, of the powder (the article purchased in powder,) this was explained, for I found in all the samples, after the triple tartrate (the ant. tart.) had been carefully washed out by cold water, at least ten per cent, and in two or three much more, of a powder comparatively insoluble, which proved to be principally *super-tartrate of potash*, and *tartrate of lime*.

‘I strongly suspect,’ the writer adds, ‘that the manufacturers are in the habit, after boiling the tartar with the oxide of antimony and filtering, of evaporating to *dryness* immediately that portion which is to be sold in *powder*; which will at once explain the impurity and cheapness of this article, when compared with that which has been carefully *crystallised*.’—*Lond. Journ. of Science*, July, p. 243.—*Lond. Med. Repos.*

Medical Matriculations in Edinburgh.—From the following statement of the number of Medical Matriculations which have taken place in the University of Edinburgh during the last

five years, it will be seen that the afflux of students of this description to that celebrated school still continues to increase.

	Nos.
In 1820 — 21,	754
1821 — 22,	817
1822 — 23,	867
1823 — 24,	870
1824 — 25,	905, to April.

A considerable number are stated to have been in attendance on the medical classes when this return was made up, who had not then matriculated; many of whom were however expected to do so in the course of the summer session, which would render the number for the present year still greater.—*Edin. Med. Journ. April, 1825.*

New Mode of Securing Anatomical Preparations in Spirits.—DR MACARTNEY, of the University of Dublin, has employed a thin plate of Indian rubber as a covering for preparation jars, in place of the former laborious and offensive one, by means of putrid bladder, sheet lead, &c.

It is essential that the Indian rubber should be painted or varnished, after which not the slightest evaporation of the spirits takes place. The material, by its elasticity, adapts itself to the variations in the volume of the contents of the jar from different temperatures, and thus removes the principal cause of the escape of the spirits.

It is probable that leather coated with Indian rubber, and painted, would answer as well as the rubber itself, by which the expense would be greatly diminished.—*Lond. Med. Repos.*

The Stomach Syphon, by Mr Bryce.—One of the most valuable applications of the *Syphon* with which we are acquainted, has been recently made by Mr Bryce, surgeon in Edinburgh.

The object of this invention is to throw fluids into the stomach, and to extract fluids from it, in cases where poison has been swallowed. In order to apply the syphon to this purpose, in place of syringes and pumps, Mr Bryce conceived the idea of making the longer leg of the syphon moveable, so that when the shorter leg was in the stomach the other could be raised *above* the mouth, or placed in the usual position *below* it. The following is a description of this instrument, &c.

To a common *œsophagus* tube, about twenty-six inches long, a tin tube of the same calibre is accurately fitted, by making

the one pass about an inch into the other. This tin tube is about three feet long; or, to be more portable, it may consist of two pieces each eighteen inches long, accurately fitted to each other as above mentioned, and the joinings made air-tight, by being neatly and firmly wrapped round with slips of wetted bladder. A bladder capable of holding about a quart of liquid is then to be firmly fixed to the other end of the tin tube; and this bladder at the part opposite the end of the tube, is to be provided with a ring and stopper, for the purpose of emptying it, or pouring fluids into it.

In using this instrument, the œsophagus tube (which forms one leg of the syphon) is to be introduced through the nose or mouth into the stomach, so as nearly to reach the bottom. The open end of the tin tube is then to be joined to the œsophagus tube, and the joining made air-tight. The bladder being then filled with water or any other fluid, the tin tube with its attached bladder is to be raised towards a perpendicular, when the fluid will instantly descend into the stomach.

In order to extract this fluid again, and with it the other contents of the stomach, it will only be necessary to depress the tin tube so as to bring the bladder *below* the level of the stomach, and thus form as it were a common syphon. And this process of filling and emptying the stomach alternately, may of course be repeated as often as it may be deemed necessary.—*Edin. Journ. of Science, July.*

Note.—In the *Edin. Med. Journ.* for April, and in the *REPOSITORY* for July, (p. 66) a case of poisoning by opium is given, in which this simple instrument was successfully employed by Dr Alison of Edinburgh.—*Lond. Med. Repos.*

Remarks respecting the Coroner's Inquest held on a Patient who died in St. George's Hospital. By a disinterested Physician.—* It has never come to my knowledge to have heard of such utter

* It may be proper to state, that these remarks are written by a physician known to, and justly respected by, the profession—of much eminence in one of the largest country towns, not in any way connected with hospitals, and no farther interested in this matter than his laudable zeal for the respectability of the profession leads him to warn the unheeding part of it, that eagerly catch at whatever is calculated to lower those who are more eminent than themselves, from adopting a mode of conduct, or countenancing the diffusion of opinions, which can in no ways elevate themselves or promote their own interests, but which will inevitably—if so promoted—bring discredit upon the profession generally, and lower themselves with all above them. They may rest assured that they who adopt a line of conduct, which we here warn against, will not be the individuals who will rise in the general anarchy of professional feeling and conduct which these practices will occasion.—The editors need not add, that, by giving these remarks insertion, with this note of approval, they may be considered as entirely approving of, and adopting the sentiments which it contains.

contempt of evidence in a jury, nor such a want of comprehension of the duties that office imposes on a juryman, as were displayed by the jury of this inquest, and by its foreman—Mr Bailley. I do not now speak of the merits of the practice—nor can I bring myself to believe that the jury had aught to do with those merits, otherwise every dissatisfied relative of a patient who has died in an hospital, or under the care of a practitioner or practitioners in private practice, may have the means of almost ruining the physician or surgeon who attended him, or of seriously injuring the institution in which he died, in a similar unjust manner as in the present case.—Of the merits of the practice, I have said, it is not my intention to speak, because it in no manner belongs to the view of the transaction which most intimately concerns all medical men possessed of those feelings which ought to imbue the mind of men of liberal education and of gentlemen, and who dislike to see matters peculiarly belonging to them, interesting their general reputations, and on which they themselves are alone capable of judging, decided upon by persons who, we will venture to say, are generally illiterate, and on topics connected with this inquest particularly uninformed; but I will speak of the verdict of the coroner's jury, of the very improper conduct of the coroner himself in suffering that verdict to be recorded, proceeding, as it did, under circumstances of the grossest impropriety, and in defiance of the testimony that had come before them, and of the effect it is calculated to have upon the profession and upon the community. The coroner and his jury had not even a complete statement of the case, and the medical evidence, such as it was, went to the justification of the treatment, yet the foreman, making himself both a party concerned and a judge in the matter, and both acting and speaking from prejudices derived from no very respectable source, bawls out—for no other term ought to be applied to it—‘I think he has died from negligence and bad treatment;’ and forthwith, though the coroner appears to have known better, a verdict is given, which must remain among the county records ‘as the true presentment’ of a jury, whose foreman acknowledged, that he had procured himself to be impanelled because he thought the man had not been properly attended to; and this verdict is found, when coolly inquired into, so thoroughly unsupported, that the foreman is under the necessity of making a handsome donation to the hospital, to prevent the inference that otherwise must have been drawn, that he had been influenced not merely by humanity, but base rancour against an individual. That any man should be so

wanting in all sense of right, as to have supposed himself a proper person for a juryman, having formed his opinions previous to inquiring into the evidence, is a matter to me of no small surprise, and is only exceeded by my wonder at his afterwards acknowledging it. This, though it acquit not the juryman of gross ignorance, is at least demonstrative that his intentions were not malicious. But it is but right to look at the effect which an inquest thus turbulently held and hastily concluded is calculated to have both on the hospital and the surgeon to whose care the man had been consigned—it might, indeed, be carried farther, I mean to hospitals generally. Few people, comparatively speaking, can weigh evidence, but all can understand the plain language of a verdict; and though the very last thing which I would wish to see concealed would be the wrong treatment or the negligence exhibited in hospitals, medical men, as a body, have a right to demand, *that none but members of their own profession shall sit as judges upon them, because they only are capable of understanding the real merits of the question; they only can tell when a difference from the routine practice, or adherence to old plans, arises from ignorance or real science.* Had this been the case in the present instance, questionless the inquiry would have been longer, and the satisfaction of those examining into the evidence more complete, while they who only can comprehend a verdict would have gone away impressed with truth instead of falsehood. But now the result of the after-inquiry will never be able to wipe off from the minds of many the prejudices they have imbibed, both against the hospital and against the surgeon; and many will continue to say, that some truth must have been united with it, or a jury of twelve Englishmen would never have come to such a verdict. Among the poor and uninformed, also, the ill-will already borne against all hospitals, and their ready belief of every tale of bad food, bad practice, negligence, inattention, &c., in which already they love to believe, will be increased, and the utility of charitable establishments of this kind, to say the very least, materially lessened. And to all this it may be said, that a single case only has happened, and from a single case nothing need be apprehended. True, if it remain a single case; but it is from the repetition of single cases that effect is made upon the public mind, which, unless timely opposed, will be as detrimental to science as to humanity. For the effect of these kind of legal calumnies is to check science, and to bind surgeons down in eternal trammels, till they would become as mechanical and as worthless a race as the legislated Chinese, who have moved

in the same dull circle, without retrograde and without advance, for so many centuries. And against humanity it will act in two ways:—it will prevent many real objects of charity taking advantage of such institutions; and it will leave them to be occupied by those only who are utterly and thoroughly destitute, and who, consequently, having no friends to watch over them, or to regard the attention they may receive, will be dependent upon the humane feelings of the officers of the charity only for proper care. And though these might safely be relied upon while the present race remains, who have had the influence of a contrary system, it requires but little knowledge of mankind to know that our very best feelings have something selfish attached to them; and that in the attention a medical man pays to the poor, he looks, at the same time, to their welfare and his own, and is not less stimulated by the hope of advancing his own reputation and fortune, than by the benefits he is enabled to confer upon a fellow-creature. His humane feelings once excited, he will be induced, indeed, to go very far where no self-interest is manifestly served; but the difficulty of exciting these will be just in proportion to their apparent separation from the personal advantage of the surgeon.

It was not till after the above had been written, that I perceived that what I have said only from inference has really happened, and that one of the daily papers has persisted in the truth of a charge which has been so completely refuted. With men like this writer, who ‘live by lying and slandering, and slake their thirst by evil speaking,’ no assertion of mine probably will have any weight, nor, indeed, do I regard such persons as worthy of a serious endeavour to convince them. Yet it may be as well to remind even such individuals, that the reputation of the living is of as much importance as the treatment of the dead, and that that is but a sorry cause which can only be supported by adding falsehood to falsehood, and malignity to injustice. To impute evil conduct to the nurses because they exculpate themselves, to disbelieve a witness because he speaks not as the slanderer wills, may, indeed, be the proper office of these modern liberals; but certain I am, that no honest, no conscientious man can look at the manner in which this subject has been treated by one part of the public daily press, without feelings of disgust and shame—disgust at that hypocrisy which, under the pretence of compassion for the dead, seeks only to calumniate the living; and shame, that a country which owes so much to public discussion, should nurse within its bosom such a perverter of the blessing—

shame, in fact, to be compelled to acknowledge him as a countryman. One assertion, however, I will dare to make, and sure I am that it cannot be refuted. Negligence and inattention to the comforts of hospital patients can scarcely ever happen, so public and so open to investigation are these establishments, and so little reluctance do the objects of their relief exhibit in complaining even when there is no reason for complaint. And with respect to medical and surgical treatment, though occasionally improper persons may be appointed to these institutions (and this is but occasionally,) the inmates of hospitals are infinitely more certain of the very best management, than nine-tenths of those who have never been objects of charity.

I have been induced to make these remarks, because, though the daily press took the matter up with great bitterness, excepting the Editor of the *New Times*, no one has been honest enough to retract their first opinions, or, at least, have done so in a single paragraph, while whole columns were devoted to abuse of the surgeon and the institution. How this can be reconciled to just dealing, I know not—to me it seems that their object is to pander to the vile taste of the populace by perpetual calumny, but that to notice things of good report, or give the public correct information, is considered as a very subordinate part of their duty. They are, indeed, in the language of Lord Bacon, among those who, possessed of 'a natural malignity, do not affect the good of others, but in other men's calamities are, as it were, in season, and are even on the loading parts.'—E.

Lond. Med. Repos. pp. 282—285.

DR CHERVIN.—The *Bulletin des Sciences Medicales* contains the following notice of this Physician:

'Dr Chervin, in order to settle the question of the contagious nature of yellow fever, has employed himself in the most painful and dangerous researches; the whole conducted entirely at his own expense. He left Paris in October, 1814, and arrived at Gaudaloupe in December of the same year: he has since visited Cayenne, the Antilles, the coasts of North America (from Louisiana to the main,) and the whole of Spanish South America, with the purpose of witnessing this fever,—collecting information from every possible source,—and examining all the public and private documents bearing upon the question. He, in the years 1816 and 1817, opened the bodies of upwards of five hundred persons who had died of this dis-

ease ; besides many others during the terrible epidemics of New Orleans, and especially that of the Savannah in 1820. The result of these immense labours is, his firm conviction that yellow fever is produced only by local causes, put into action by a peculiar constitution of the air, which it is, however, difficult to appreciate ; that the local cause consisted of emanations from vegetable or animal substances in a state of putrefaction ; and that the disease was never propagated by contagion, in any of those instances which came to his knowledge.—*Lond. Med. Journ.*

On the Extraordinary Obliteration of the Canal of the Strangulated Portion of Intestine, which has occasionally been produced by Adhesive Inflammation of its Mucous Membrane in Inguinal Hernia. By Thomas Bishop, M. D., Thornby, Northamptonshire.

In 1817 I met with the following instance of a very unusual obliteration of the calibre of the whole of that portion of intestine which was strangulated, in a case of recent inguinal hernia, under ordinary circumstances ; to the relation of which I am desirous of giving a greater share of publicity than it derives from appearing only in my inaugural thesis published at Edinburgh in 1822, under the title 'De Hernia Enterocèle Acuta Dissertatio,' &c. John Hardstaff, a miller, at Leicester, aged twenty, previously in good health, was seized 27th March, after having carried a sack of corn, with pain in the bowels, accompanied with nausea and severe vomiting ; I visited him at noon, which was about four hours after the attack, and found that a bubonocele of moderate dimensions, formed apparently of intestine, without any portion of omentum, had made its first appearance at this time. I immediately bled him largely, and attempted reduction by the taxis in the usual way, but without success ; oily and tobacco glysters were then employed, and the coldest water locally, with great diligence.

On the following morning, 28th, I found him nearly in *statu quo* ; repeated the abstraction of blood from the arm to syncope, and again attempted manual reduction with the utmost caution, and I flattered myself at first with success ; but in this I was soon undeceived, by the re-appearance of the hernial tumour. The operation was now proposed, but firmly rejected both by patient and relatives. In the evening the symptoms were somewhat less urgent ; the tobacco glyster was repeated, and an opiate given.

29th.—The symptoms continued with little variation ; glysters continued, and the operation still repelled ; the taxis was again employed very slightly for a few minutes, unsuccessfully.

30th.—A bad night; worse in all respects; the only proper remedy still urged in vain; he suffered a farther loss of blood, and took only the citrate of potash.

31st.—Finding, at length, that he had no possible chance of recovery without the operation, all his symptoms having been more pressing, with the addition of hiccup, during the last night, he submitted to it. The sac contained about three ounces of a serous fluid. The intestine, unaccompanied with omentum, was slightly discoloured, its texture apparently uninjured, but very firmly embraced by the mouth of the sac, was reduced with sufficient readiness. The urgent symptoms now nearly ceased for several hours, but afterwards returned with increased urgency, more especially the bilious vomiting, acute pain in the bowels, and tension of the hypogastric region. Exhausted by these, he remained in a very composed state about twelve hours; and now yielded to the violence of the vomiting and pain, twenty hours after the operation.

On opening the body forty hours after death, it appeared that the intestine had been completely reduced; traces of considerable inflammation were obvious over the whole cavity of the abdomen, but not the slightest approach to gangrene; the inflammation was most considerable in that portion of the gut (part of the ileum) which had been strangulated. *This portion I cut out, and, on minute examination, found that it measured an inch and a half, and was so completely impervious throughout its whole extent, as not to admit either the smallest probe or a drop of water, in consequence of a very firm cohesion of the villous coat, most clearly produced by the adhesive inflammation, giving the whole a very notable degree of firmness and thickening; so that nothing like mobility between the coats could be perceived when the sides of the gut were rubbed together between the thumb and finger.*

* * * * *

‘ A middle aged labouring man had had an inguinal hernia on the right side for a considerable length of time, which, not being retained by a suitable bandage, protruded, and became strangulated. The strangulation was relieved by the taxis, but vomiting and constipation remained. They, however, gradually diminished so far, that the vomiting became less frequent, and a small, rather firm motion occurred every eight or ten hours; his condition, in general, improved so much, that he could follow his business in some degree, and his appetite returned. He continued in the same condition for two years, when the hernia again protruded, and became strangulated, with the usual symptoms. The surgeon who had often before attended him reduced the hernia by the taxis, but the symp-

toms continuing unabated, I was called in, and, on examination, found the abdominal ring pervious, the belly tense, but not particularly painful. I ordered magnes. sulph. c. tra. theb. and the injection of tobacco smoke, but without success. In two days, a little discharge took place from the bowels, but the rest remained as before. As I suspected that a partial strangulation still remained, and as the patient refused to submit to the operation, I gave him ol. ricini c. tra. theb. and clysters of tobacco decoction with vinegar; put him in the warm bath, &c., but all in vain. On the fifth day of my attendance, and the seventh from the appearance of the symptoms, the patient died. On examining the body, we found that there was not any strangulation, and that the viscera of the abdomen generally were in a healthy state; but in the small intestine we found a portion, about an inch and a half long, constricted and nearly altogether obliterated, presenting also the appearance of commencing gangrene * * * * *. — *Lond. Med. Repos.*

LIST OF NEW PUBLICATIONS.

AMERICAN WORKS.

A Treatise on the Medical and Physical Treatment of Children. By William P. Dewees, M. D. Lecturer on Midwifery, &c. 8vo. pp. 500. Philadelphia. Carey & Lea.

Elements of Therapeutics and Materia Medica; to which are prefixed two Discourses of the History and Improvements of the Materia Medica, originally delivered as Introductory Lectures. By N. Chapman, M. D. Fourth edition revised and enlarged. Philadelphia. Carey & Lea.

An Essay on the Remote and Proximate Causes of Phthisis Pulmonalis; being an Essay to which the Prize was adjudged for the year 1825, by the New York State Medical Society. By Andrew Hammersley, M. D. 8vo. Philadelphia. James Webster.

AMERICAN EDITIONS.

A Treatise on Derangements of the Liver, Internal Organs, and Nervous System; Pathological and Therapeutical. By James Johnson, M. D. 1st American from the 2d London edition. 8vo. pp. 221. Carey & Lea. Philadelphia.

Domestic Medicine, or a Treatise on the Prevention and Cure of Diseases by Regimens and Simple Medicines; containing a Dispensatory for the use of Private Practitioners. By William Buchan, M. D. To which is added a Family Herbal. A new edition, revised and amended; by John G. Coffin, M. D. 8vo. pp. 652. Boston. Phelps & Farnham, and Nathaniel S. Simpkins.

An Exposition of the Natural System of the Nerves of the Human Body. By Charles Bell. 8vo. Philadelphia. Carey & Lea.

An Address to the Inhabitants of Lancashire and of the adjoining counties, on the present state of the Medical Profession. By Thomas Turner. London. 1825.

FOREIGN WORKS.

Practical Commentaries on the present Knowledge and Treatment of Syphilis; with coloured plates. By Richard Welbank. pp. 50. London. 1825.

Lizar's Anatomical Plates. Part viii. The Brain.

A Course of Dissections for the use of Students. By Herbert Mayo. 8vo. pp. 284. Plates. London. 1825.

The Science of Surgery; or the Principles of Pathology made the basis of Medical and Surgical Practice; by which the healing art is considerably simplified—established upon three morbid conditions of the system; and extricated from a labyrinth of useless and erroneous terms, classes, orders, &c. By W. W. Sleigh, Lecturer on Anatomy, &c. Vol. I. 8vo. pp. 318. London. 1825.

Lectures and Observations in Medicine. By the late Matthew Baillie, M. D. (Printed but not published.) London. 1825.

A Century of Surgeons on Gonorrhœa and on Strictures of the Urethra. London. 1825.

On the Removal of Stone from the Bladder, without the use of cutting instruments; containing a general review of the subject; together with a description and plates of the instruments invented by Dr Civiale and others, and details as to the mode of using them. By H. G. Belinaye, Esq. London. 1825.

A Course of Dissections for the use of Students. By Herbert Mayo, Surgeon, and Lecturer on Anatomy.

The Works of Matthew Baillie, M. D.; to which is prefixed an account of his life from authentic sources. By James Wardrop, Surgeon Extraordinary to the King. 2 vols. 8vo. London. 1825. 25s.

The Syphonic Theory, or brief observations on the circulation of the blood, and on Respiration as connected therewith. By Edward Hapley, Surgeon. R. N. 8vo. London. 1825. 1s.

Elements of the Theory and Practice of Physick, designed for the use of Students. By George Gregory, M. D. 2d edition, with additions and amendments. 8vo. London. 1825. 16s.

Considerations on the Theory and Practice of Physiological Medicine; or, Dialogues between a Savant and a Young Physician, a Disciple of Professor Broussais; containing a concise exposition of the new medical doctrine, and a refutation of objections brought forward against it. Translated from the French. 8vo. London. 1825. 9s.

Military Medical Reports, containing Pathological and Practical observations illustrating the diseases of warm climates. By James McCabe, M. D. 8vo. Cheltenham. 1825.

An Inquiry into the Seat and Nature of Fever. By Henry Clutterbuck, M. D. 2d edition. 8vo. London. 1825. 12s.

Remarks on Irritative Fever, commonly called the Plymouth Dock-Yard disease; with Mr Dryden's detailed account of the fatal cases, including that of the lamented Surgeon Dr Bell. By John Butter, M. D. &c. 8vo. Davenport. 1825. 12s.

Practical Remarks on Indigestion, particularly as connected with Bilious and Nervous Affections of the Head and other parts; including observations upon the Disorders and Diseases of the Stomach, and superior parts of the Alimentary Canal. By John Howship. 8vo. London. 1825.

Practical Observations on certain Pathological Relations which exist between the Kidneys and other organs of the human body, especially the Brain, Mucous Membranes, and Liver. By John Fosbroke. 8vo. Cheltenham. 1825. 6s.

An Essay addressed to Captains of the Royal Navy, and those of the Merchants' Service; on the means of preserving the health of their crews; with directions for the prevention of Dry Rot in Ships. By Robert Finlayson, M. D. 8vo. London. 1824.

Medical Researches on the Effects of Iodine, in Bronchocele, Paralysis, Chorea, Scrofula, &c. &c. By Alexander Manson, M. D. London. 1825.

A Short Inquiry into the Capillary Circulation of the Blood; with a comparative view of the more intimate Nature of Inflammation; and an Introductory Essay. By James Black, M. D. London. 1825.

Sketches of the most Prevalent Diseases of India; comprising a Treatise on the Epidemic Cholera of the East, &c. &c. By James Annesley, Esq. London. 1825.

Elements of Operative Midwifery. By Daniel D. Davis, M. D. 4to. pp. 345. London.

A Short Illustration of the Advantages derived from the use of Sulphurous Fumigating, Hot Air, and Vapour Baths, in a variety of obstinate diseases. By Jonathan Green. 8vo. pp. 40. London. 1825.

A Treatise on the Properties and Medicinal Application of the Vapour Bath, in its different varieties, and their effects in various species of diseased action. By J. Gibney, M. D. London. 1825.

Heads of Lectures on Mental Diseases. By Alexander Morrison, M. D.

Sur les fonctions du Cerveau and sur celles de chacune de ses parties, avec des observations sur la possibilité de reconnaître, les Instincts, Penchans, les Talens, ou les Dispositions Morales and Intellectuelles, des Hommes and des Animaux, par la configuration de leur cerveau and de leur tête. Par F. G. Gall. 6 vols. 8vo. de 400 a 500 pages, chacun. Paris. 1822-1824.

Traité Anatomico Pathologique des fièvres intermittentes, Simples and Pernicieuses, &c. Par E. M. Bailly. 8vo. pp. xvi. 533. xvi. app. 64.

Lettres à un medecin de Province ; ou Exposition critique de la doctrine medicale de M. Broussais. Par A. Miguel, M. D. 8vo. pp. 52. Paris. 1825.

TO CORRESPONDENTS.

The Editors acknowledge the polite attention of Dr Dewees in sending them his late work on the 'Physical and Medical Treatment of Children.' A review of this work will appear in the next number.

Dr A. L. Peirson's 'Clinical Remarks,' No. 4, have also been received, and will appear in the next number.

GOOD'S STUDY OF MEDICINE, 5 Volumes, 4th American Edition.

SIR ASTLEY COOPER'S LECTURES ON SURGERY, 2 Volumes, Coloured Plates.

It is with great pleasure we inform our readers that Messrs. Wells & Lilly have in press and partly published, the above named excellent works. We have seen the two first volumes of each, and express freely our gratification at the handsome and correct manner in which they are executed. Dr Good's work particularly deserves this commendation. It is printed exactly from the English copy, and contains the *marginal* notes. This would alone give it a great superiority over all other American editions. But it is decidedly more valuable than any other from the fact that it contains an *additional volume* to the other editions, and of course a fifth part more of new and valuable matter. The well earned reputation of Sir Astley Cooper, will secure to this edition of his work, much of the professional patronage of our country.—*Ed.*

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[NO. II.

'Difficult, and Impracticable Labour.'

BURNS.

[Communicated for the New-England Journal of Medicine and Surgery.]

LABOUR is made difficult by numerous causes, and the degrees in which it is so are very various. The most difficult cases are those in which a marked disproportion exists between the head of the foetus, and the bony pelvis. Those are least manageable by ordinary means, and have been most fatal in their results, in which the pelvis is so deformed or distorted, that the conjugate diameter falls greatly short of its ordinary length in inches. Its established standard length has been derived from accurate admeasurements of the well-formed pelvis. Deviations from this are ascertained by admeasurements in the living subject. Every degree of deviation is a deformity. This, however, may exist in a degree so slight, that labour may be accomplished by ordinary means in many cases, and in others by such as involve neither the mother nor the child in any serious danger.

The next degree of deformity prevents the birth of the foetus, while the head retains its standard or ordinary size at the full time. In these instances, the head has been diminished by an operation fatal to the child, but not necessarily injurious to the parent. To prevent this evil, premature labour has been induced at a period of foetal growth, sufficiently advanced to allow of the child being born alive, and reared. Of thirty-three cases,

with the particulars of which Dr Merriman was fully acquainted, the results of premature labour were as follows :

‘ In 21 of these the children were born dead, 4 were born alive, but incapable of living more than a few hours. One of these was a case of twins. Nine were born alive, and capable of being reared.’

‘ Thus,’ says Dr M., ‘ nearly *one-third* of the children were saved, who must have lost their lives, had the women gone to their full times, and been delivered by the perforator; and all the women recovered, the majority of whom, if not the whole number, must have been lost, had the *Cæsarean* section been performed.’

The following limitations and cautions respecting the operation for inducing premature labour are from a paper of Dr Merriman, in the *Transactions of the Medico-Chirurgical Society of London* :

‘ 1. As the primary object is to preserve the life of the child, the operation should not be undertaken till *seven complete months* of *utero-gestation* have elapsed; and if the *pelvis* of the mother be not too much contracted to allow of it, the delay of another fortnight will give a greater chance to the child of surviving the birth.

‘ 2. The practice should never be adopted, *till experience has decidedly proved*, that the mother is incapable of bearing a full-grown *fætus* alive.

‘ 3. It is sometimes necessary to have recourse to the *perforator* in the first labour, though there may be no considerable distortion of the *pelvis*; therefore, the use of this instrument in a former labour, is not *alone* to be considered as a justification of the practice.

‘ 4. The operation ought not to be performed when the patient is labouring under any dangerous disease.

‘ 5. If, upon examination before the operation is performed, it should be discovered that the presentation is *preternatural*, it might be advisable to defer it for a few days, as it is possible that a spontaneous alteration of the child’s position may take place, particularly if the presentation be of the superior extremities.

‘ 6. The utmost care should be taken to guard against an attack of shivering and fever, which seems to be no unusual consequence of this attempt to induce uterine action, and has often proved destructive to the child as well as alarming with regard to the mother. The peculiar circumstances under which the operation is performed, and the habit of body of the patient, will determine the accoucheur either to adopt a strictly antiphlo-

gistic plan, or to exhibit opiates, or antispasmodics and tonics.

‘7. In order to give every possible chance for preserving the life of the child, it will be prudent to have a wet nurse in readiness that the child may have a plentiful supply of breast milk from the very hour of its birth.

‘Lastly, *A regard to his own character should determine the accoucheur, not to perform this operation unless some other practitioner has seen the patient, and has acknowledged that the operation is advisable.*’

The delay under the circumstances stated in the fifth paragraph above quoted, has, according to Denman, Burns, and the late Dr Merriman, answered the important end for which it is proposed. A later writer, Dr Ramsbotham, offers a different view of the subject. ‘Whatever situation,’ says Dr R., ‘the foetus in utero assumes in the early stages of gestation, it retains that situation throughout the whole of pregnancy, and so presents in the time of labour. Although there be, relatively, in the early months, a larger quantity of liquor amnii in proportion to the size of the embryo, than in the more advanced stages, which may be supposed to allow it a free and ready motion in every direction on change of posture in the mother, the disproportion gradually diminishes as the process advances, so that by the completion of the seventh month, the relative quantity of that fluid is so lessened, as to be found insufficient to permit the change of position proposed.’*

Dr Ramsbotham offers no facts in support of his doctrine, and it does not therefore materially affect the practice, or the delay under the circumstances as recommended by the above named writers. It would not seem, however, very easy to ascertain the presentation at the period referred to in the operation. It is not very easy to do it in the earliest hours of labour, which takes place at the usual time and after its most natural manner. Is it not almost impossible, in the case supposed, of premature labour artificially induced, the os uteri having been merely opened by the finger, or a passage through it effected by a small instrument, as far as the membranes? It is not questioned that Denman, Burns, and Merriman ascertained the presentation in the cases in which they waited before they broke the membranes; but the rule is for the whole profession, and the question is a fair one, whether the majority of the profession will be able to ascertain, under the circumstances, whether the presentation be natural or not; and if the latter, whether it be a foot or a hand which presents.

The cases are rare, at least in this country, in which the practice under consideration will ever be made a matter of

question. But this fact in their history, makes it very important that the rules of practice regarding them should be very accurately stated. Cases may occur, and if the doctrine of Ramsbotham, which is certainly reasonable, be true in the majority of cases only, it may be in some of those which demand the operation. Delay here would be obviously useless; and under an expectation that a change in the presentation might occur, it may be so far protracted, that the whole purpose of the operation may be defeated. Unless, therefore, the presentation is obviously premature, and of the upper extremities too, there seems to be very little reason for delay when the time as above prescribed has arrived for the operation.

Other means recommended in this degree of deformity consist in abstaining as far as possible from food during pregnancy, with the view to prevent the growth of the foetus. To abstinence has been added occasional bloodletting, and the use of laxative medicines. A paper on this subject was published by Mr James Lucas, of Leeds (Eng.) containing cases in which these means had been proved useful. Dr Merriman remarks very justly on the practice here recommended, that undoubtedly it may be useful in cases of well-formed women, whose children are comparatively very large, and are delivered with difficulty, and possibly where a very slight degree of deformity exists. He considers the expected benefits to be confined within very narrow limits. Assilini has the same views on the subject. He supports them by the well-known fact, that the foetus will acquire full size, notwithstanding the irritability of the stomach of the parent has been so great and so constant as scarcely to allow any food to remain long enough in its cavity to allow of its being digested. He might have added what is equally true, that the foetus is not unfrequently born of full size and in good condition, though the parent has been sinking under chronic disease during the whole of pregnancy, and is too much emaciated and exhausted to survive delivery.

The last degree of deformity to which I shall allude is presented by those cases, in which the conjugate diameter is so much diminished as to render delivery by the natural passages impossible. And now what are these cases? In answering this question, other deviations from the standard pelvis, which consist in a shortening of the conjugate diameter will be stated, together with their effects on labour. Writers have not agreed on the precise degree of contraction of the conjugate diameter at which the delivery of the living foetus becomes impossible.

Dr Osborn says, that a foetus at full maturity cannot pass alive if the dimensions of the pelvis, from the pubes to the projection of the sacrum, be only $2\frac{1}{4}$ inches. Dr Clarke of Dublin places the limit at $3\frac{1}{4}$ inches, under which a child at full maturity cannot pass. Dr Hamilton says, 'manifestly under three inches.' Burns says, 'It is universally agreed, that a living child, at the full time, cannot pass through a pelvis whose conjugate diameter is only two inches and a half.'

It is not easy to ascertain the precise degree of contraction the pelvis may have experienced. It has been ascertained, however, in the mass of cases with sufficient accuracy for practical purposes. The natural efforts in some cases, and the forceps or lever in others, have at the limits of contraction above stated been sufficient for the delivery of the foetus. Exceptions, it is true, have occurred to this remark, but they have not in the majority of instances been made by the simple fact of the contraction of the pelvis.

Dr Bland, in his elaborate critique on Dr Osborn's Essays on the Practice of Midwifery, has some useful remarks on deviations from the standard pelvis, and on their effects on labour. He notices a source of error in estimating the contraction of the conjugate diameter which should not be overlooked. 'For although,' says Dr Bland, 'the sacrum may project so much, or advance into the pelvis so far as to reach within two or three inches, and consequently the entrance into that cavity would be only of that diameter, if the bones were directly opposite to each other; yet the pubes, being placed something lower than the greatest projection of the sacrum, and opposed to a part of that bone that diverges backward, the real distance between them may be much more considerable than to the touch it may seem to be. When it happens, that, in cases where the projection of the sacrum has occasioned exceeding great difficulty in the beginning of the labour, opposing an almost insuperable bar to the entrance of the head of the child into the pelvis, by directing it too far forward over the pubes, yet when that direction has been altered by the crotchet, or by any other means, and the head brought into the line of the centre of the pelvis, the conclusion of the labour has been frequently effected with very little exertion or force.'* —pp. 200, 201.

From the allusion to the crotchet in the above quotation, it will be perceived that Dr Bland has not in view the saving of the child in these cases, for the use of that instrument is fatal to the foetus. It may happen that the contraction of the pelvis of

* Observations on Human and Comparative Parturition, by R. Bland, M.D.

the kind described by him, exists in a slight degree, and in such a case the efforts of the womb, or the long forceps, may be sufficient to bring the head through the brim, and into the cavity of the pelvis. Dr Bland's work, with some readers, will lose much of its effect on account of the spirit in which it is written. It is wholly controversial, and was written, it would seem, with the sole purpose of controverting and refuting the theoretical and practical doctrines of Dr Osborn. It was to correct or to oppose Dr Osborn's statement of the degree of contraction of the pelvis beyond which the living child could not pass, that the quotation above made, has a place in Dr Bland's Observations. This consideration, however, should not diminish its practical value.

The conjugate diameter of the pelvis is now and then found to fall far within the limits above named. Mr Charles Bell has a pelvis in his museum so exceedingly narrowed in this direction, that a marble measuring less than one inch in diameter cannot fall through the conjugate diameter in any direction. This is an extreme of contraction. In less degrees the head may pass if diminished in its bulk, and there are means of doing this. How far may this be done? The whole vault of the cranium, as some French anatomists express it, may be removed, and nothing but the breadth of the base of the cranium and the depth from the root of the nose and the symphysis of the chin left to pass through the pelvis. Dr Davis, it seems, from a review of his very late work on 'instrumental midwifery,' has invented an instrument by which even the breadth of the base of the cranium may be lessened, and of course nothing more would remain to obstruct delivery but the face. From a very accurate admeasurement of the base of the standard cranium, as given in the 'Récherches sur les différens degrés de compression dont la tête du fœtus est susceptible,' of M. Thouret, it is ascertained that the *auricular* diameter, as he terms it, of this part, viz. from one temporal bone to the other, measured from the squamous portion to the branch of the zygomatic process, is from $2\frac{1}{2}$ to nearly three inches. Burns and others, who have measured the face from the root of the nose to the chin, the vault of the cranium being entirely removed, have ascertained that the average depth here is an inch and a half. We have, then, only to ascertain the capacity of the pelvis in a given case, to learn, whether the head diminished as above, can pass, or, this being impossible, whether an attempt shall be made to save the lives of the mother and child by other means, or the patient be left to die undelivered. With many the latter alternative has been preferred; or rather all ordinary means

having been tried, labour comes to be considered impracticable; and though an apparent interest continues to be taken in the case, and an imposing activity to be displayed, nothing effectual is done. The patient sinks more or less rapidly, and the case is terminated by death. By others, extraordinary means have been employed, and delivery under most hopeless circumstances has been accomplished. It is not to be concealed, that death has most frequently been the result of these efforts; but, though this has been the case even in the majority of cases, the means have not been abandoned. They, or one of them, still belong to the profession, and recent circumstances give a peculiar interest to at least one of them.

Two operations have been proposed and performed for relief in the otherwise hopeless cases of contracted pelvis under consideration. One of these, the Cæsarean operation, is the oldest, and has retained its place from the remote antiquity from which its origin is dated, to our own time. The section of the symphysis pubis, called from the individual who *first performed* it, the Sigaultian section, is more modern in its history, and was comparatively short-lived. The history of the operation of Sigault is quite extraordinary. I say Sigault, though it is well-known that *Severin Pineau* recommended artificial means for causing a separation of the symphysis nearly two hundred years before him. Pineau, however, never included among these means the *section* of the symphysis; he merely recommends fomentations, baths, &c. applied to the part. Sigault conceived the idea of this operation in 1768, while a student in surgery. He performed the operation on a woman named Souchot, in 1777, and with success. Baudelocque, many months before, as he says, Sigault *had dared* to perform his operation, had attempted, in an inaugural dissertation, defended before the schools of surgery in Paris, to destroy the favourable opinion entertained of the section of the symphysis. The successful result of a case, in which the section had actually been made, served to give at once an extraordinary celebrity to the operation and its author. The profession, throughout Europe, it is said, admitted it among the established facts of surgery; the author received the highest honors which are in the gift of his calling, and the strongest expression of the public favour, in the patronage of the government. The faculty of Paris caused a medal to be struck in honour of Sigault, and the government settled a pension on him, and on the individual who had submitted to the operation.

This operation was not long-lived. Subsequent trials were less successful. Even where the pelvis was not excessively

narrowed, the gain in the diameter was not so great as to allow the child to pass, except by the use of so much force as to destroy it. Siebold, a very distinguished man of that time, performed the operation, Feb. 4, 1778, on a patient aged 35, the year following Sigault's case. This woman had had seven children, all dead born. Six of these had been delivered naturally, and one after being diminished in bulk by instruments. Siebold found the conjugate diameter to be *thirty-three lines* in length. The standard foetal head is from thirty-six to forty-two. This seemed a favourable case for the operation, and it was performed. Much difficulty was experienced, for the symphysis was completely ankylosed, and it was found necessary to use the saw, in order to separate the bones of the pubes. This being done the child was turned. The greatest difficulty was experienced when the head arrived at the pelvis. It was necessary, says Siebold, to compress it, *fortement et sans miséricorde*. He was several times about giving up the case in despair. He expressed the strongest regret for having made the attempt. The patient recovered. Many patients were submitted to the operation, but the results were so unfavourable, that the operation became more and more seriously questioned, until at length it has almost passed out of use. Sigault himself is considered as having had his own confidence much shaken in it, inasmuch as he ceased to recommend it in the last years of his life, in cases in which the small diameter of the brim was less than two inches and a half. Now, as the French inch is a line longer than the English, he may almost be considered as giving it up altogether, as confessedly the child will pass alive by the ordinary means, or with other artificial assistance, through a pelvis of these dimensions.

There were two facts in this operation which concurred in destroying the confidence of the profession in it. The first was, that there was not so much gained of room to the pelvis, by the section, as its author and his partizans held forth; the second, that so much violence was done to the other symphyses of the pelvis, by such a separation of the pubes as gave any useful additional capacity to the pelvis, that the patients either died directly of the operation, or dragged out a miserable existence afterwards. Thus it was found that a separation of the bones one inch, added but from one to two lines only to the conjugate diameter; two inches and a half, six lines; and this last, to the manifest injury of the sacro-iliac synchondroses. M. Serin obtained three lines by a separation of two and a quarter inches. M. Chevreul two lines for two inches; and M. Desgraves, six lines for two inches, and eight lines separation. Deventer said

that it was not by a separation of the symphyses, but by a retrocession of the sacrum that an increase of the brim is to be procured ; and, finally, Roéderer adds, that a separation of the pubes only increases the transverse diameter of the pelvis. It is surely not to be wondered at, that under such various and discordant results, and such contradiction of great men of the times, that this celebrated operation should have declined, and at length come to be found hardly any where else than in the history of medicine. This qualification may be sufficient to embrace the solitary cases which are still, now and then, to be met with. A year or two since, two such cases occurred in Naples. The operation was performed by Dr Manchini, professor of anatomy in that city. In both, the children were born alive, and did well. The mothers recovered. After the operation the patients were put into warm baths, and the farther separation of the bones and dilatation of the parts left to the efforts of nature. On delivery, the bones were found to have receded from each other an inch and a half. In one case, no re-union of the bones took place, in consequence (it is supposed) of their not being brought into apposition after delivery, and the power of walking is not perfectly recovered. In the other case, the bones were brought together and retained in their situation by rollers. The bones united, and no inconvenience was sustained.*

I have not been able to turn to the particulars of these cases. They were, probably, very favourable for the operation. Such cases there doubtless are. It was the error of Sigault and his partizans, that they applied it indiscriminately to all cases. It was to supersede the Cæsarean section and crotchet ; in fine, to render impracticable labour a comparatively easy thing. They forgot the shape, the outline of the pelvis. They seem to have regarded it as a circle, made of a single piece of elastic substance, which would be enlarged equally in every direction, by being divided in any part of it. The brim of the pelvis is not a circle. It is an ellipse, or triangle ; when deformed it is most commonly so, by a compression of the ellipse in one direction, and in front for the most part ; and a corresponding lengthening in the other, or transversely. Bearing in mind the relations of the bones with each other which form the pelvis, particularly of the sacrum, it is evident that in the deformity in question, no useful size will be gained by the pelvis from the operation.

The cases in which the section of the symphysis may be

* Med. Chirurg. Rev. and Journ. March 1824.

serviceable, and for which, if ever, it may be revived, would seem to be those in which the pelvis preserves its natural shape, but is under size, either positively or relatively. Thus it may be too small for the head to pass when of standard dimensions, and when compressed by the forceps or efforts of the womb, as far as it is susceptible of compression. Here a gain of room in *every* direction, as would be the case under the supposed circumstances, might be of great advantage, and it might become a question whether the perforator should be used, or the symphysis divided. Or, secondly, the pelvis may be of standard dimensions, but the head out of proportion large, or the sutures and fontanelles ossified, or allowing of no compression. Here, relatively, the head is too large to pass, and the same questions might occur as under the circumstances just supposed. From the state of midwifery practice in this country and Great Britain, it is almost too much to say, that a question would be made as to the proper course. And should one arise, it is not hazarding too much to say, without any qualification, that the answer would be universally against the section of the symphysis.

The Cæsarean operation still belongs to the profession. The history of this operation is alike curious and instructive with that we have just considered. The true operation consists in an incision into the cavity of the abdomen, and into the uterine cavity. The term has been sometimes misapplied, for it has been given to simple gastrotomy. It is a very different thing from this, and in what will now be said concerning it, the true meaning of the term will be adhered to. It has been frequently performed. When Dr Hull published his translation of M Baudelocque's memoir, he collected accounts of two hundred and thirty-one cases, of which one hundred and thirty-nine proved successful. This list includes the cases published on the continent of Europe, as well as in Great Britain.

The difference of result of the operation on the continent, and in Great Britain, including Ireland, is quite striking. Most of the successful cases have occurred on the continent. In Great Britain, the operation has been performed in twenty-five cases, if Mr Barlow's case be one, which has been doubted. Of these, two women have survived, and ten children. Mr Barlow's is one of the successful cases. It has been objected to this, that the uterus was not opened. Mr Barlow contends that it was, against Professor Hamilton and others, who deny his claim to the only successful operation of the kind ever performed by the profession in England. Dr Merriman is disposed to side with Mr Barlow. Mr B. has performed the ope-

ration twice since. Both women died. They were over 40 years of age, and suffered severely from malacosteon. The children were both saved.* The remaining successful case in that country is quite astonishing. The operation was done in a village in Ireland, by an illiterate midwife, one *Mary Dunally*, upon a patient named Alice O'Neal, and with a razor. 'She held the lips of the wound together with her hand,' says the *Edinburgh Medical Essays*, Vol. V., 'till some one went a mile and returned with silk and the common needles which tailors use. With these she joined the lips in the manner of the stitch employed ordinarily for the hare lip, and dressed the wound with whites of eggs.' In twenty-seven days the woman was well. There is no reason to doubt the truth of this narrative. A surgeon, Mr Duncan Stewart, saw this patient some days after the operation, and Dr Gabriel King of Armagh, drew out the needles by which the edges of the wound had been kept in contact.

A question may arise of the causes of the difference of result of the operation as practised on the continent, and in Great Britain. It has been resolved into the difference of time in the cases, at which the operation has been performed in the two countries. On the continent it has been done *early*, when circumstances have distinctly shown that labour was impracticable without it; and also *early* when the question has been between it and the use of the perforator; and, finally, it has been done *early* in cases in which, by *Baudelocque's* own showing, and who is himself a strong advocate for the operation, the labour might have been accomplished without it. How far the result has been effected by the time chosen, will be shown by some cases hereafter. In England, the operation has been delayed even beyond the time when any thing could be hoped for, either by the natural or artificial efforts. It has been done in short, at a period of labour, in the otherwise healthy, in which generally very serious diseased action has occurred from ineffectual labour; or at a similar time in those who were suffering more or less from grave disease before labour took place. It is not to be wondered at, that the results should be so very diverse. In Catholic countries, a religious scruple has made the life of the foetus as important as that of the mother; and the means of relief, therefore, in these cases, are to be such as will give the former the best chance of being born alive. Perhaps the life of the child is even thought of more importance than that of the mother, as it is by baptism that it is to become a member

* *Vid. Essays on Surgery and Midwifery*, by James Barlow, Surgeon, 1822.

of the catholic church. The operation is done early, that this advantage may be secured to the child. In England different views prevail, and the perforator and crotchet are used where there is a chance of delivery by them; and other means are deferred in the hope, that, at length, by some chance, the case may terminate without them.

The principal reasons for the delay, which is considered as having had so much agency in producing the melancholy result of the Cæsarean operation in England, have been found in a disinclination to interfere with a process so healthy as labour is, and especially after a manner so appalling as the steps of this operation are acknowledged to be,—the diseased state of the system under which labour takes place in many instances, and the fatality which has hitherto attended it. If its hitherto fatal character be now ascribed to its true causes or not, it has itself become an argument against an early recurrence to the operation. It is no part of the object of this paper to recommend precipitancy in the adoption of unusual means in the treatment of difficult labour. There is much in the function of labour itself which encourages delay. It is the only *natural* and *healthy* function which falls directly under the professional cognizance of the physician. It is accomplished, by its own agency, in the vast majority of cases. It is highly probable that these peculiar facts in its history, have a powerful effect in directing the practice, or in preventing the adoption of active means early, in cases in which this function does not take place under circumstances strictly *natural*; or is itself *diseased*. They may have an influence which, at the time, the physician may be unwilling to acknowledge. Is it not true, that the cases which have ended fatally, after the use of artificial means of whatever kind, and others which have been seemingly hopeless, or have laid the foundation of chronic disease,—is it not true that the dangerous or fatal character of such cases has far more frequently proceeded from a delay of judicious and well used means, than from precipitancy in their use?

There is indeed a rashness occasionally to be met with, in hurrying labour, which is sufficiently reprehensible. This consists in the use of means for expediting the process, when there is no other motive for doing so, than the saving the time of the practitioner. Thus ergot is given; violent voluntary efforts recommended and enforced, and even instruments employed, where there is no serious indication for either. The cases I refer to are those in which an insurmountable obstacle exists to delivery, whether positive or relative. In these, the strength at length fails; the pains cease; the urinary bladder

is compressed ; the abdomen tender ; the pulse rapid ; the heat great ; the tongue dry ; vomiting is present ; and, worse than all, constant jactitation, with disturbed mind,—these are the cases which are produced by delay, under the circumstances above supposed, and which are among those in which the most serious and violent operations have at length been performed, and with the serious purpose too of saving life.

The Cæsarean operation continues to be occasionally performed, in cases of otherwise impracticable labour. Cases are recorded in the foreign Journals, and a very brief sketch of such as are at hand will be given. It will be perceived that they have, in most instances, been performed on the continent of Europe, and with great success.

I. In the ninth volume of the Medico-Chirurgical Transactions, 1818, a case is published from Dr Locher of Zurich, who performed the operation, Feb. 1817. The conjugate diameter measured 'not above two, or at most two and a half inches, and the remaining dimensions were in the same proportions.' The patient was an exceedingly deformed woman. Dr L. saw her first at 3 A.M., and performed the operation at 5 P.M. Both mother and child were saved. The question here was, between the use of the perforator and the Cæsarean section. The woman was certain the child was alive, and the latter operation was preferred. This would not, probably, have been the decision in this country, or in England.

II. This case was performed in the West Indies, and is reported in the London Med. and Phys. Journal; No. 283, 1823. Patient, a slave aged 40, and had been nearly 60 hours in labour. The conjugate diameter would scarcely admit three fingers, say two inches in length. The sacrum jutted towards the symphysis pubes, and from this last projected a tuberosity about an inch and a half towards the sacrum. She recovered, after an alarming attack of peritoneal inflammation. Nothing is said of the child. It is observed, that the operation has been more successful on slaves in the West Indies, than on Europeans.

III. In Graefes and Walther's Journal, a case is given by Mr Rutt of Upper Silesia, which is incorrectly called a Cæsarean operation. The abdomen was opened, but not the uterus. The case was extra-uterine. The woman recovered.

IV. In the Medico-Chirurgical Gazette of Saltzburg, is the case of E. H. aged 28. Pelvis not more than two inches wide. The operation was performed on the second day. The woman recovered. The child lived half an hour. Dr Johnson, of the Medico-Chirurgical, thinks the surgeon highly culpable for not

preferring embryulcia to the Cæsarean section. The latter was preferred, as the child was declared by the woman to be alive.

V. VI. Dr Johnson, in his number for Sept. 1822, has the following.—‘*Cæsarean operation successful.*—M. Bosch, surgeon to the public hospital of Mæstricht, has recently performed this terrible operation with success. Both women were young, or in the prime of life. The pelvis of both were, of course, distorted. The operations were performed in the public hospital. The incisions were in the *linea alba*, and the lives of both mothers and children were preserved.’—*N. Bibliotheque Med.*

VII. VIII. These were both cases of *self-performed Cæsarean section*. The first was a negro woman in Jamaica. She performed the operation on herself, and recovered. The child died of lock-jaw. Dr Moseley communicates this case. The second occurred in this country. It is published in the *New York Med. and Phys. Journal*, March 1823. I quote from Dr Johnson as above. He has some doubts about the authenticity of these cases. Of the last, he says, ‘It is one of those extraordinary cases which we cannot easily believe, yet dare not positively deny.’ She recovered.

IX. May 23, 1818. Dr Locher performed a second operation on the patient mentioned No. I. Her situation was more unfavourable, for rupture of the uterus had occurred before the operation. Some hours elapsed after the accident before it was performed. She died 8th July following.

Connected with this subject are the operations which have been, within a few years past, successfully performed on the abdomen for hitherto incurable disease within its cavity. Among these, are those of Mr Lizars of Edinburgh, for the extraction of diseased ovaria. These have been published in this Journal. This bold and wise surgeon, has the best claims to the admiration and respect of the profession. He has been successful, where the circumstances have been the most discouraging; and he operated even against the opinion of those who were consulted with him on the cases. One case was fatal; one successful; and in two others the operation was useless, but not fatal. In speaking of this contributor to our profession, his anatomical labours should not be forgotten. Operations for similar purposes with those of Mr Lizars have been performed in this country. The cases of Dr M'Dowal are sufficiently remarkable. They amount to three. They were performed under no very favourable circumstances, and were successful. Dr Nathan Smith has performed a similar operation with suc-

cess; Dr Gallup an unsuccessful one in Vermont;* and, very recently, Dr Alban G. Smith of Danville, Kentucky, has published a case of the same kind, which was successful.† Both of the ovaria were extirpated in a case in Pott's works, Vol. III. p. 352. The woman recovered.

Allied to the subject of this article are other operations on the abdominal cavity, though made for other purposes than the above. The case in Hufeland's Journal for Feb. 1825, is one of these. Gastrotomy was performed in this case for '*Intus-susception*.' The intestine was divided, the intus-suspected part, to use the language of an English journalist, was drawn out, and the wound in the intestine brought together by six stitches in the form of the glover's suture, and the ends of the silk thread brought out of the wound. The intercepted part, when drawn out was found to be *two feet in length*. The man recovered. Other operations have a similar connection. Such, for instance, are those of the late Professor Osiander of Göttingen. These consisted in the removal by the knife of portions more or less extensive of the diseased uterus. Many of these were successful, where little more than a temporary benefit, if any at all, could have been looked for. Dupuytren of Paris, one of the great names of modern surgery, has followed the example of Osiander, and with similar results. The cancerous uterus has been extirpated entire by Dr Sauter; and notwithstanding the necessary injury done the bladder and peritoneum, the patient recovered entirely, and returned to her ordinary labours. She died four months after of cough, dropsy and diarrhœa. 'On examination the bladder was found still open; the wound of the peritoneum, through which the intestines had descended, was quite whole, and no inflammation or adhesion in the abdomen or pelvis.'‡ Mr Chevalier, in 1804, extirpated the uterus in a case of chronic inversion of that organ. The patient was 54 years of age. The ligature was passed round the *cervix uteri*. This part was about four inches in circumference. This was a case of *complete* inversion; the tumour reached to below the middle of the thighs; the patient recovered, and lived many years afterwards.§ Mr Newnham has published a very interesting case, in which he removed by ligature the inverted uterus. The uterus was in the vagina. The patient was aged 24, and was delivered 21st Jan. 1817. The ligature was applied 13th April. The tumour became detached 6th of

* Vid. North American Medical and Surgical Journal, Philadelphia. No. 1. Vol. I. Jan. 1826.

† Vid. New-England Journ. of Med. and Surg. Vol. XIV. p. 358.

‡ Vid. Annali Universali, 1823.

§ Vid. Merriman's Synopsis of Difficult Parturition. Third Edit.

May. It was about the size of the human heart. The patient recovered.* Finally, the os and cervix uteri have been divided in a scirrhouss state during labour, to permit delivery, and with success.

It would not be difficult to multiply successful cases.† It must not be concealed that unsuccessful ones are also to be found. No selection has been made in those now briefly stated. They were found, with the exception of Osiander's and one or two others, in works which have been periodically or otherwise published within the last two or three years; and all the cases met with have been noticed. They have not been collected with a view to any precise mode of practice, much less to indicate the cases in which such practice might be proper. It has been with the view to bring together a variety of facts, which may have a nearer or remoter bearing on some of the important questions in operative midwifery. If they do no more, they do this; they may serve to show, that very serious lesions may be made in the abdominal cavity; that that cavity may be freely exposed to air and temperature, by an extensive incision into it; and, further, that enlarged and variously diseased organs may be removed, without greater danger to life than occurs in other great operations in surgery. Finally, they show that most important operations may be done on the uterus itself, when most diseased, and when only displaced; that it will tolerate a ligature on *itself*, and be thus extirpated, and with safety to the patient. Perhaps it may be allowed me to say, that under all the circumstances the success has been greater in all these cases, than in the great operations referred to. Do they not have some bearing on the Cæsarean operation, in its appropriate cases, and may they not be looked to for an argument for an earlier recurrence to such operation, than has been deemed safe by British practitioners?

There is another case, to which these facts may be applied, and to which they may be thought more legitimately to refer. I mean the case of *ruptured uterus*. Under all the ordinary modes of treatment, this accident has been as fatal as the Cæsarean operation, as it has been performed in Great Britain. Gastrotomy, if my memory serve me, has been performed in this country in the case of ruptured uterus, in one or more cases with success. I am not aware that the operation has been performed in this city in the same case. Three cases of ruptured uterus have occurred here, within a few years, which

* Vid. Newnham's *Essay on Inversio Uteri*, p. 31.

† Vid. 3d Vol. of this Journal, p. 54.

were published in former numbers of this Journal. They were all fatal. In one, the foetus was delivered by turning. A portion of it had escaped into the cavity of the abdomen. Both mother and child died. In the other cases no attempt seems to have been made to deliver the foetuses. Death happened in about two hours after the rupture in one of these last cases; in the other, sixty hours after. In these cases was not gastrotomy indicated? Was there the least prospect of recovery, while the foetus and its appendages remained in the cavity of the abdomen? Is there any warranty of a favourable issue during the state of things contained in the last question, in any authentic facts in the history of midwifery? As far as I have examined this history, I find no such warranty. If any patients have lived, it has been a life of almost uninterrupted misery. In some cases, indeed, ulceration has at length taken place in some spot of the uterine cavity, as in extra-uterine pregnancy, and the decomposed foetus has either been forced by portions through the opening, or gastrotomy has been performed, and the whole removed at once.

There are some facts connected with rupture of the uterus, which deserve to be noticed. These are presented in the whole state of the patient, in whom this accident has occurred. A state, resembling the extreme of exhaustion, follows in the majority of cases immediately, and sometimes a short time after the accident. The prostration is extreme, and is more noticeable from occurring so soon after great exertion of power. The countenance is remarkably expressive of the overpowering oppression to which the system has been suddenly subjected. This state is not exactly imitated by the effects of uterine hemorrhage, even when very great. It is most nearly so by the state which occurs suddenly in inverted uterus, particularly if this accident be complicated with uterine hemorrhage. It is unquestionably the sudden rupture of the organ which directly produces this state of the system, but is it not kept up and increased by the unnatural situation which the foetus has been made to assume? As to the treatment of this case, authors I believe are universally agreed, that in all cases of rupture of the uterus, if the child is within reach, it should be always delivered by the natural passages; by the forceps if possible; if not by getting at the feet, and thus delivering it. The question is about the time. If the above question be answered in the affirmative, which I believe to be the true answer, this should be done as soon as the nature of the accident is fully understood. Suppose, however, that the foetus has escaped entirely from the uterine cavity, and returning it

is out of the question, shall gastrotomy be performed at once, or shall it be delayed; or shall no attempt of this kind be made to save the woman or child? Mr Burns says, 'If we have been called early, when the child is yet alive, and before the abdominal viscera have been much irritated by the presence of the foetus, we are warranted to extract the child by a small incision.* In this country, the physician being for the most part in attendance when pains are urgent and the child fairly in the pelvis, and the state of the child being quite uncertain, we have authority for operating as soon as the whole nature of the case is understood, and this last may be done very soon. Thibaut, and Lassus, French writers, and the latter a late one, recommended an immediate resort to the operation, to preserve the strength of the patient, and to prevent fatal prostration. If the part of the uterus ruptured be ascertained, they recommend that the incision should be made on the corresponding side of the abdomen. I would conclude, by asking, if the facts contained in another part of this paper do not furnish some probability of a favourable issue of gastrotomy in the cases of ruptured uterus now referred to? And does not the state of the patient, in these cases, support the doctrine that the sooner the operation is performed the better?

CLINICAL REMARKS, No. IV. By A. L. PEIRSON, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

Acute disease of the Brain.

ONE of the most important concerns in the business of a general practitioner, is to watch the progress of disease in infants, from trifling indisposition to severe disease; and it is an universal observation, that whatever the infantile complaint may be, and whatever organs are the seat of it, the brain is always easily affected, and this affection may ultimately be the source of danger and cause of death. It were a desirable point gained, could we learn to distinguish the early symptoms of this affection. But writers on this subject, particularly Cheyne, who has been more read than any one, lay too much stress on the important knowledge to be derived from observing the colour and consistence of the alvine discharges, which in truth are perpetually varying, and not unfrequently perfectly

* Principles of Midwifery. 3d Am. Ed. Vol. II. p. 55.

natural. It needs a series of practical observations, made in some foundling hospital, to enlighten us on this important point of pathology; and even under circumstances the most favourable for observation, it must require a great deal of acuteness to point out the connexion between the structural changes and the external appearances;—to teach what is going on in the ‘brainular system,’* when the pulse is slow; what when it is frequent; what when the stomach rejects every thing; what when the whole intestinal canal is torpid, as an inert tube; and what when convulsions are racking the muscles. To ask for the pathognomonic symptoms of what is termed hydrocephalus, is to ask to define the limits of the primary colours in the rainbow. There is a grouping of symptoms which the greatest dunce cannot possibly mistake, and yet each one of them may separately exist without alarming the most sagacious observer. Perhaps danger may be as often detected through sympathy of the stomach, or by any other means; and a more important caution cannot be given to an inexperienced physician than this,—that when uncontrollable vomiting exists, which cannot be accounted for by dentition or weaning, or the existence of the exanthemata, *the brain is to be suspected.* I have unfortunately had too many occasions, during the past year, of verifying these remarks. In one instance the disease commenced, or rather first attracted attention, by spasm in the muscles of the arm; in one, by the affection of the respiratory organs; and, in several, by obstinate vomiting. As I cannot boast a successful case, where the symptoms were confirmed, I have had repeated opportunities of ascertaining the seat of disease by post-mortem examination.

The following case exhibits a specimen of rapidly destructive disease, which, from causes I need not mention, was almost entirely unimpeded by curative means. It must be in a case of this sort, that the method recommended by a writer in the Edinburgh Medical and Surgical Journal, of bleeding till the pulse is *entirely extinct*, and apparent death takes place, affords promise of success. But unless Scotch people are more tractable than New-Englanders, it would not always be easy to put such methods in execution.

Sept. 15th, 1825. W. F. a healthy infant of six months was at sunset apparently well, and in very high spirits. After nursing and sleeping half an hour, he awoke in great distress, vomited a portion of food, and was extremely restless and uneasy. Active purges procured several stools, which were natural in colour and consistence, and afforded no relief. Neither

* Kirkland on Apoplexy. Meaning the brain, spinal marrow, and nerves.

did the application of the warm-bath and of twenty leeches to the temples procure any abatement of the symptoms. The pulse I frequently and distinctly counted *fifty-three* in a quarter of a minute. On the 16th, at one P.M., convulsions took place, which destroyed the patient in two hours.

Examination sixteen hours after death.—The veins of the scalp were unusually full of blood. On removing the top of the cranium, the sinuses of the dura mater were filled with coagulated blood; the veins on the surface of the brain were considerably distended. But the most remarkable appearance was the extreme softness of the texture of the brain, which was such that it could scarcely be handled. The pia mater had a dingy appearance. The quantity of water in the ventricles was not *more than common*.

Gall-stone.

A woman, aged 75 years, has had repeated attacks of vomiting, with pain in the epigastrium, and constipated bowels.

Sept. 28th, 1825. Had pain more violent than common, with incessant vomiting. Pulse 100, full and strong; tongue clean; no pain in the head. After forty-eight hours she was relieved, during which time she took alternately of opiates and cathartics in moderate doses, until she had a stool, when the pain and vomiting subsided. On the next day she voided a hard, heavy, gall-stone, of a regular oval shape; the middle portion rather rough, and the ends rounded and polished. This polishing appeared to be effected by the collecting of hardened mucus, which had become so incorporated with the calculous particles, that macerating in alcohol and in water, had little effect in diminishing the lustre. Its greatest circumference was $3\frac{1}{4}$ inches; its least, three inches. The mode of its passage constitutes the point of practical interest in this case, which is by no means the most wonderful of the kind on record, for Baillie* mentions finding them in the dead body as big as a hen's egg. Pemberton† has seen one passed, the long diameter of which was two inches and a quarter, and the short diameter one inch and a quarter. This last author concedes the probability of calculi of large size finding their way into the first passages, by inflammation and consequent ulceration. Saunders‡ mentions two cases, from the observations of others, where the proofs of this fact appeared on dissection. Heberden§ is

* Morbid Anatomy, chap. x.

† On diss. of Abd. Visc. chap. iii.

‡ On diss. of Liver, chap. iii. sect. 1. 22.

§ Comm. chap. 50.

disposed to think the *ductus communis* may be dilated to permit the passage of calculi two inches in circumference. The ulterior history of the cases we are relating, is very satisfactory as to the mode in which the calculus was transmitted.

For some time after the calculus passed, the patient was considerably relieved, and remained in comparative ease till the middle of November, when she complained of indigestion and rejection of food. Some laxatives and light tonics were ordered without effect. The vomiting was more frequent, accompanied with urgent thirst and desire for acids. Emaciation rapidly took place. A tumour was now distinctly to be felt underneath the edge of the liver, extending toward the umbilicus, apparently globular, of considerable hardness, and giving no pain on being handled. The symptoms grew more aggravated, till her death took place, Dec. 13th. For a week previous her stomach seemed incapable of passing any thing downward; the urine was very scanty, and stools, of very trifling quantity, were once or twice only produced by enemata.

On examination of the body, five hours after death, the intestines were found empty; the stomach large, distended with flatus and dark-coloured fluid, and drawn considerably toward the right side. The colour and feeling of the liver was natural. The gall-bladder was not to be distinguished by any natural appearances, but its place was occupied by a scirrhus, the size of a man's fist. This was connected closely with the duodenum, which was very thin, and tore on being gently handled; and also with the pylorus, which was nearly impervious, and exhibited the usual appearances of scirrhus. The whole diseased mass was also connected with the ascending arch of the colon, about six inches from the valve of the cæcum; and on separating this connexion, an opening was discovered on the coats of the intestine, the edges of which were perfectly sealed. This opening was about half an inch in diameter. There was no canal corresponding to the opening, to be found in the tumour; but there seems little reason to doubt, that the passage of the calculus was effected through this part. On cutting through the diseased mass, a cavity was found capable of containing an olive; the sides of which were irregular and puckered. It is probable this was the original cavity of the gall-bladder. The colon was contracted to one-third its usual size.

In the 12th volume of the *Medico-Chirurgical Transactions*, a case similar to the above is related by Mr Brayne, in which a gall-stone was passed at stool, the transverse circumference of which, at its widest part, was 3 3-8 inches; the long diameter 1 3-8 inches; short diameter 1 1-8 inches. In its external

characters, it very nearly resembled the one I have described. Its discharge was effected by an adhesion of the gall-bladder to the duodenum, very near the pylorus, and subsequent ulceration. The patient lived about a year and a half after she voided the calculus, and died of hydrothorax.

Perforation of the Stomach.

Feb. 7th, 1826. A child, aged six months, has had pertussis for fifteen days. Has shown no symptoms of constitutional disease till within a few days. Takes the breast less eagerly than common; breathing slightly laborious, pulse 120; small: moderately hard. Has taken vomit of antimonial wine.

R. Vin. tartrit. antimon. 3*iv.*

Tr. Digitalis 3*ij.*

S. gtt. xx omn. 4^a horâ.

Let the back between the shoulders be rubbed with tartar emetic ointment till an eruption is produced. Let her take a grain of subm. hydr. every night.

Feb. 6th. Paroxysms of coughing less severe; stools dark-coloured; other symptoms continue. Cont. med.

Feb. 7th. This morning was affected with slight convulsions; purple spots appear on the extremities; the whole of the left foot and ankle dark-coloured, and the discolouration terminates abruptly as if a string were tied just above the ankle,—tremulous motion of the right arm and hand; pulse irregular, small, and hard, and strongest at the left wrist. Omit medicines. Let it take ol. ricin. till the bowels are moved.

Feb. 8th. Died at 2 A.M. with slight convulsions. Had taken food and medicine since last report, and was amused with playthings. Seven teaspoonfuls of oil were given at intervals of an hour. On the day previous to its death had taken several doses of assafoetida julep.

Examination of the body twelve hours after death.—Muscles unusually flaccid. On percussion, right side of thorax sounded flat. In the thorax, the left lung was principally sound; in both were found small portions, distinct, and at some distance from each other, of complete hepatization, not amounting, even in the right lung, where they were most numerous, to one twentieth of the whole lung. The mucous membrane of the larynx and trachea was slightly reddened, and had lost the lustre which it presents in a healthy state. In the abdomen, the liver and small intestines presented a natural appearance; the colon was much contracted through half its extent. On first opening the abdomen, I perceived the odour of castor oil; the

reason of this I discovered on examining the stomach. In its great curvature, at the cardiac extremity, there was an opening two inches in diameter through which its contents escaped. There was no appearance of ulceration at the part, and the edges of the opening were not red. In the place of the coats of the stomach at this place was a yellowish tenacious, semi-transparent matter, of the consistence of paste, which adhered to the spleen. A little of the same matter was found loose in the other parts of the stomach. The rest of the organ was sound. It is evident the coats of the stomach had undergone a change different from ulceration or sphacelation. I infer this alteration of structure began to take place before death, for the following reasons :

1. The shortness of the period between death and the examination of the body.
2. The symptoms before death indicated great prostration of the powers of life from some internal cause.
3. I have not met with a record of any case of perforation of the stomach by the gastric juice in any so young a subject.
4. Death did not take place suddenly, as in most cases where the last-mentioned appearance is discovered.

There was no smell of assafœtida in the abdomen ; the stomach must, therefore, have transmitted its contents but a few hours before death. With regard to the dose of Tr. digitalis which was ordered, and which by the way was not administered quite as frequently as ordered, it is far less than may be given with safety and advantage to a child of the same age, as a contra-stimulus in pertussis, pneumonia, &c.

Salem, March 1825.

Influenza.—‘Catarrhus Epidemicus.’

[Communicated for the New-England Journal of Medicine and Surgery.]

THIS disease has made its appearance in this country two years in succession. The last year it began, at least in this part of the country, earlier than the present season. It was at its height in January. This year it was at its height in this place say the middle of February. It has swept over the whole country. It began in the south or south-west, and we daily learnt from the papers of its severity, and of its increasing extent. In some places so numerous were the sick at the same time that schools, legislatures, and courts, were closed ; whole families suffered at the same time ; it is almost literally true

that the whole community were in a short time, afflicted in different degrees with the same malady. In some, nay in many cases, it has been very mild, not interfering with ordinary occupations. In a vast many it has been a very severe disease, absolutely incapacitating patients for any occupation. In some it has been fatal.

Epidemics are traced to states of atmosphere, and to states of seasons; to circumstances in seasons or the atmosphere which to be sure are not exactly discoverable, but which are supposed to exist. Without this reference to something as general as the atmosphere, it would be less easy at least, to explain the vast extent to which some epidemics arrive at. Few have been more extensive than influenza. That of 1782, which swept over Europe, is said to have begun in China. Having travelled through Asia into Europe, it at length crossed the Atlantic, and passed through this whole country. Without stopping to inquire if the whole of this history be true, no one will doubt of the almost universal extent in America, of the epidemic which has just visited, and has not yet left us. The mass of the population are witnesses, in their own experience, of the truth of the remark.

The remote causes of influenza are sufficiently obscure. It has been ascribed to peculiarity of season. But it has happened at all seasons, and under all sorts of peculiarities. A cold and dry winter,—a mild and damp one; a hot summer, or a cold one,—under all these varieties, influenza has prevailed. The weather, in this part of the country, has been peculiar in some respects the two years last past. Our winters have been remarkably mild, and somewhat wet; and the summers, especially the last, in parts of them, excessively hot. The diseases of these two seasons have been quite striking. Thus we have had epidemic measles in both of them; hooping cough has also been rife; with the exception of these, and influenza, other diseases have been rare, and not violent. In other words, the years have been very healthful. Dysentery in the city at least, has hardly prevailed, certainly not as in former years. The same is true of other visceral, and the febrile diseases of different seasons. Rheumatism has, perhaps, been more prevalent. We have had typhus, to be sure; and we always in all years have it, and it has in many cases been very protracted and severe. But I should be disposed to think, that even this has not been more frequent or severe than in preceding years.

It was remarked of last summer, that parts of it were excessively hot. But notwithstanding the heat, great health prevailed; and our autumnal diseases, which it was feared would

have been very grave, had not this character. The greatest mortality that occurred was directly produced by heat and the imprudencies of the labouring classes. There is not any direct connexion between these facts and the disease to be noticed in this article. But it is not out of place to allude to the medical character of a year or two, in which a very extensive epidemic has appeared. The want of apparent connexion is no argument against real dependence.

Influenza has attacked without regard to predisposition. The greatest care has not prevented its reaching individuals. Patients suffering from other diseases, both acute and chronic, have been equally attacked by this. The length of the disease in different individuals has been very diverse. Mild cases have sometimes run out to considerable length, and severe ones have been short. I have met with but two well-marked cases suddenly relieved by spontaneous and copious evacuations. One of these was a male, the other a female. Vomiting and purging occurred spontaneously in both at the onset of the influenza, and in a few hours no symptoms of the disease remained. Vomiting has occurred alone in many other cases, but was not followed as in these with immediate recovery. Rash has occurred in many cases; in one family, in every member who had influenza, parents, child, and domestic. It was not critical. In a case of a very young child, where the disease had been very severe, a very full and bright rash occurred during decided convalescence.

I believe the influenza of this year has not much varied from its ordinary characters. If it has differed from the descriptions in the books, it has been in the severity of the inflammatory character of its early symptoms. It is described as always making its attacks with great violence. But as far as the writer has seen it, it has been disposed to continue so for some days, and patients have not been apt to pass rapidly into a state of great exhaustion. In other words, more active means than are ordinarily thought necessary have been useful; and where exhaustion has occurred, it has seemed more frequently to have followed the undiminished continuance of severe symptoms, than as a consequence of early active treatment. As far as the writer has seen, the remark that influenza affects the middle-aged, the strong and robust, rather than the two extremes of age, the delicate and feeble, has been confirmed by the epidemic of this year. He has no facts to offer on the question of its contagious character.

The disease has occurred to the observation of the writer, most frequently after the following manner, and has been

accompanied by the following symptoms. There has been, first, lassitude, chills, and great aching of the bones, and headache; next, excitement with hot skin, flushed face, increased headache, especially the forepart of the head, or over the eyes; oppression about the chest; noisy, and more or less loose cough. The face has expressed much distress; the eyes full, and as if swollen, suffused, watery; face swollen, turgid. The respiration has been difficult, as if a weight rested on the chest, or a solid mass obstructed it on the inside. Nausea, vomiting; in some, diarrhoea—in more, costiveness has been noticed. Hot skin was remarked above. This has not been universal, or, I should rather say, constant. Under the exercise of violent coughing profuse sweat has frequently occurred, and in some cases has been a symptom. Matters expectorated, serous mucus, or sero-mucus; frothy, heavy, adhesive mucus, not unfrequently streaked with blood. In one case, blood was uniformly diffused through the mucus, giving it a peach-bloom colour. In this case, this expectoration occurred with the cough, and in none was pleuritic pain so severe as in this, or was active treatment more speedily beneficial. Headach was mentioned. This, as is ordinarily the case, was a leading symptom in this epidemic. In many cases, it has passed into distinct and severe hemicrania. In two cases, this form occurred very early. It was the character of the headach almost from the start. It was the most obstinate of the symptoms. In the two cases alluded to, the left side of the head was the seat of the pain. Along with the headach in many cases, pain of a very serious character took place in the cheeks, in parts answering to the sinuses. Where the headach attacked one side, the corresponding cheek was the seat of the pain. This, like the hemicrania, was periodical. One patient was so harassed with this pain in the cheek, which, he said, was distinctly connected with the nose, that he attempted relief by snuffing up violently cologne water. This produced a full discharge from the nose of a purulent fluid as he described it, and with temporary relief. The pain recurred at the usual hour next day, and was again relieved. This course was continued till recovery.

With so much trouble in the head, it is not to be wondered at, that the faculties of the mind were disturbed. It was not distinct delirium in hardly a case, as I saw it, but great confusion, with disinclination to all mental labour. One patient, a student, remarked that he could make no use of his mind. He could neither read nor think. This case is particularized, because the obvious symptoms were less severe than in many other cases. Some patients said they felt as they supposed

they should have done if intoxicated. In some instances, influenza passed into low fever. Its passing to hemicrania, shows its near alliance to common bronchitis. It has attacked patients of very delicate constitution, and some in which a disposition to grave disease of the lungs had been manifest. In two of the severest cases met with by the writer, this was the case. One of them had suffered hemoptysis in the fall. They perfectly recovered. It has been remarked, that epidemic catarrh does not so frequently pass into phthisis, as common catarrh. If this be a law of the epidemic disease, it cannot but be regarded as a most important one. It deserves to be particularly noticed by physicians. The universal prevalence of the present epidemic furnishes abundant opportunity of observing how well-founded is this very interesting statement.

The state of the lungs and other viscera of the thorax has been alluded to. This deserves a fuller notice. In many cases, the disease was confined to the mucous lining. These patients complained of a diffused soreness; the parts in the chest seeming to them sore, and as if scraped by coughing. In some, when less severe, it seemed as if they breathed through gauze, or cobwebs. Where the soreness was most severe, it was referred to the parts in the course of, and immediately beneath the sternum. Inflammation of the substance of the lungs, which not unfrequently occurred, was marked by its ordinary symptoms. Pleuritic pain was not rare. In some cases it occurred very suddenly in the disease, and was at once its most violent symptom. In one case, the acute pain of pleuritic inflammation was referred precisely to that part of the chest which answers to the situation of the heart. The suffering of this patient was vast. He was relieved by repeated active treatment. In the mass of cases, expectoration occurred early, and was abundant. This was true where other parts than the mucous texture was involved in the disease, as well as when the latter only was the case.

I have not spoken of the abdomen. This has not escaped. Pain has occurred here frequently. Soreness of the epigastrium, and of the hypocondria, has not been rare. In some it has been referred by the patients to the violence of coughing, each act of which has aggravated it. In others it has not had this reference, and in both classes of cases local treatment has relieved it. To what extent the epidemic of this year has been mortal, the writer cannot say. He has seen no fatal case of it.

Of the treatment.—The treatment has been more or less active according to the circumstances. In many cases abstinence,

with free dilution, has been sufficient. In the majority seen, more active measures have been indicated. Where headach, with oppression at the chest, and nausea, have been present, a very common assemblage of symptoms, an active emeticocathartic, has been very serviceable. If pain, or much soreness of the chest, have been present, vesication has been useful. Alterative doses of calomel, antimony and opium at night, with sufficient of the latter to procure rest, have been advantageous. For pleuritic pains, bloodletting has been eminently beneficial. Various cough and expectorant mixtures have been employed. It is not the purpose of this paper, to enter into any detail of treatment. Some of the means used have been glanced at. In some cases the repetition, or continuance, of active treatment, has not been required. In others, vesication has been repeated frequently and rapidly, and with very great relief. Different parts of the chest have been attacked with pain in succession, and blistering has, in such cases, been a constant remedy. In one case, five blisters were applied in six days, and every time with benefit. Blisters between the scapulæ were useful. This was more particularly the case, where the disease was but partially relieved by the first treatment, or the patients had neglected themselves in the early stage of the disease. The repetition of bleeding, in a few cases, was alike beneficial. Where cough continued to harass the patient, after other symptoms had yielded, the hydro-cyanic acid was thought useful. Hemicrania has remained after the disease has subsided in some instances. The sulphate of quinine and Fowler's solution have both been advantageously employed for this sequel of the epidemic.

The epidemic of this year has now been described as it has been seen by the writer. It has probably been seen under various other forms, and been managed by other means, by other physicians. It is not worth while, however, to make a record of verbal reports on these points. If it were safe, some speculations might be hazarded on the probable influences of the epidemic, as a predisposing cause of succeeding diseases. Almost every one has been ill. In many cases, active treatment has been employed; and though the disease may have been short, it has hardly left patients just where they were before its attacks. The season has been peculiar. The range of the barometer has been very remarkable, and we have experienced almost every variety of temperature. These, and other circumstances, have had probably some effect upon the human body; their agency in modifying succeeding diseases, however, cannot be foreseen, and it is as impossible to foretell what it will be in producing them.

Since writing the above, the following has appeared in our papers:—

'Influenza in China.'

'A letter from Wampoa near Canton, Sept. 23, states that an epidemic cold prevailed there, and whole crews of vessels had been at once taken down with it.'

Boston Palladium.

Sketch of 'The Italian New Medical Doctrine.'

By J. GREELY STEVENSON, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

THE theory of the essence of diseases which at present prevails in northern and central Italy, and which is supported by learned and eloquent instructors in the schools of Padua, Pavia, Bologna and Pisa, and which, under the name of the Italian New Medical Doctrine, is recommending itself to the patriotic feelings of the Italian students and practitioners of medicine, is deserving of notice from its ingeniousness, and the high character of its promulgators.

Founded upon the system that was urged upon the medical public by John Brown and his disciples, it has been called the Brunonianism of Italy; but it contains principles essentially different from those of the Scotch reformer, which are important in themselves and in their practical results. Two of the favourite theorems of Brown's doctrines were, I. That all the powers applied to the living fibre are identical in their action, being all more or less stimulant. II. That the greatest number of diseases arises from indirect debility, or a diminution of excitement succeeding to excess of stimulus. Now the Italian philosophers admit three classes of agents, stimulant, counterstimulant, and irritative, which give rise to three morbid diatheses, viz. of stimulus, of counter-stimulus, and of irritation. They also teach that inflammation is always sthenic, that it consists in excess of stimulus, and tends to propagate or create excessive stimulus; and that the greatest number of general diseases proceed from some inflammation which is always identical in its nature, though not always so in its character and appearances.

Much importance, too, is attached to the distinction made between diseases of excess or of want of stimulus, (which they term diathetic diseases) and diseases of irritation, which are always owing to simple disorder of parts, and therefore always in their essence, local.

The doctrine of counterstimulus, according to Professor Tommasini, teaches, I. That many substances exert an action diametrically opposite to *stimulation*, and produce those effects upon the excitement, immediately and positively, which were once ascribed to the action of negative powers and the diminution of stimulus.

II. That these substances destroy the effects of excessive stimulus, even without producing evacuations; and if they are applied to the living fibre in undue quantity, they produce diseases which are only to be cured by an increase of stimulants.

III. That these counterstimulant substances afford the remedies of all morbid phenomena which arise from the diathesis of stimulus; as, on the other hand, stimulants are the appropriate remedies of the state of counterstimulus, or debility.

IV. That the living fibre can bear a quantity of stimulant, or of counterstimulant substances, in exact proportion to the strength of the diathesis, whether of stimulus or of counterstimulus, or, in other words, whether sthenic or asthenic. And that this ability in the system of supporting remedies, presents to our view the just measure of the morbid diathesis more truly than the symptoms of disease exhibit it.

While these maxims are sufficiently at variance with the doctrine of the Scotch reformer, a still greater deviation from his system is made by the Italian school, in rejecting the doctrine of indirect debility; which teaches that, in a great number of cases, the excessive application of stimulants may induce in the living solid a certain morbid state, which requires the further use of stimulants for its removal; the use, for example, of wine, ether, opium, &c.

The great extent that was thus ascribed to the asthenic diathesis, reduced to a very small number the diseases which depend upon increased action, and which are curable by the antiphlogistic treatment. But Rasori, of Milan, taught that indirect debility was not admissible to this great extent; that many diseases which were thought to consist in diminished action, and to call for the use of stimulant remedies, are curable by bloodletting, purging, and the class of counterstimulants; and thus, that the diseases of excessive stimulus, were much more numerous than those arising from its diminution.

This theory required a different classification of remedies; and it follows that many of the remedies termed stimulating by the Brunonians, must be classed with bloodletting, cold, &c.; such are mercury and antimony. And further, that the morbid affections which are cured by these means are sthenic, consisting in the diathesis of stimulus, or in the increased action of the vital powers.

These fundamental maxims of the New Medical Doctrine were already for a long time applied to therapeutics in many of the hospitals of Italy, while yet the distinction between sthenic and asthenic inflammation was retained, and the employment of stimulants was general in the phlogotic affections of the eyes, lungs, liver, and alimentary canal, which were deemed asthenic because they were of long duration, and not very active in their processes. But Tommasini, of Bologna, teaches that every inflammation is of a sthenic nature, or that it is always intrinsically a process of excessive stimulus; that it is not to be considered to be asthenic, because existing in a feeble subject, nor to be confounded with those processes which are its consequences.

In all phlegmasiæ the fever is thought to be the effect, and not the cause of the inflammatory process with which it is united. Thus the greatest number of diseases are of phlogistic or inflammatory origin, whether they are acute, as typhus, bilious fever, or yellow fever, &c.; or whether chronic, as slow nervous fevers, the physconiæ or parabysmata, venereal affections, those of the glands and skin, and many other diseases which were generally considered to be simple convulsive affections. The Bolognese professor insists very largely upon this point, that all febrile affections are of inflammatory origin, even where there exists great depression of the muscular forces and of the pulse, where the patient is (to use his words) physiologically feeble; for this state, which consists in the imperfect or weak performance of the functions, is not to be confounded with pathologic debility, which has its essence in the diminution of the vital power. Thus hysterical diseases, tic dououreux, sciatica, and other forms of neuralgia, are dependent upon inflammation of the neurilemma enveloping the nerves which are directly distributed to the affected part, or which are important from their sympathetic relations. Typhus, nervous fever, petechial fevers, yellow fever (at least as it appears in Europe, for Prof. Tommasini made his observations particularly upon the yellow fever of Genoa and Leghorn) all develop the diathesis of stimulus, an inflammatory process curable by the counterstimulant or depressing treatment. Of the same character, are diseases which arise from contagion, small-pox, measles, scarlatina, &c.; for though the contagious principles, or the miasmata of these diseases, may be irritating, yet when irritative actions have a certain degree of force, they are followed by inflammatory processes in the parts to which the irritating matter is immediately applied, or upon which it particularly acts. It would be tedious to enumerate all the

morbid affections and conditions, acute and chronic, nervous and organic, which are founded upon the phlogistic diathesis ; 'such are most of the diseases that afflict humanity, and the catalogue of severe diseases and of deaths, is almost entirely marked with the seal of inflammation.'

The Brunonian maxim, which derives the nature of the diathesis from the nature of the morbific causes that have preceded it, is also rejected ; and the etiology of diseases is studied more in the remedies that cure them, than in the symptoms which they exhibit. Thus, a vast number of inflammations succeeds to the action of debilitating powers to which men are principally exposed, such as cold, moisture, privations, grief, &c. ; and violent phlogotic fevers are developed, which are not to be attributed to the exertions of a 'vis medicatrix naturæ,' but to the immediate creation of a morbid state, of a nature directly opposed to that of the preceding causes.

The view that is taken of the nature and action of pain is peculiar to the Italian Medical Doctrine, and is made to harmonize with the more general considerations of morbid conditions and processes. 'Pain,' says Prof. Tommasini, 'which presents an infinity of gradations and modifications, from the slightest uneasiness and most trivial sufferings, to atrocious spasms and the most threatening feelings of prostration, is a more or less strong expression of counterstimulus, or of that depression which counterstimulants produce in the living fibre.' The effects which it is capable of producing upon the excitement are peculiar to it, and may often be at variance with the effects produced by the very disease which is the cause of the pain itself. Thus in fevers, and more remarkably in the intermittents, the occurrence of severe pain, accompanied by cold sweats and faintness, forces us to suspend the administration of those remedies which are adapted to the principal disease ; and it now becomes dangerous to employ the bloodletting, the emetics and the purgatives, which will be victorious when the fever shall be rekindled.

The chief writers on the Italian New Medical Doctrine are not agreed in their views of the action of irritating substances, and of the irritative processes ; those processes which characterise colic, gastric fevers, tetanus, and hydrophobia, &c. Doctor Guani, of Genoa, explains them by the heterogeneity and want of affinity that exist between these substances and the 'taste' (the 'gusto') of the living animal fibre ; so that their application produces in the fibre a movement of repugnance or disorder, which is altogether different from excitation. For this philosopher asserts, that there are certain unassimilable and heterogeneous sub-

stances, which he denominates irrito-stimulants, that are incapable of producing an action analogous to the animal excitement; and that man, as well as other bodies, is endowed with a property inherent in his organization, which admits or rejects all that comes in contact with him, whether mediately or immediately; he names this property, *Animal Affinity*.

Professor Rubini, of Bologna, also teaches that the action of irritating powers is confined to disordering and disarranging the animal machine; and that the morbid state thus induced in the fibre, constitutes a third diathesis, the diathesis of irritation, which does not cause either an excess nor a deficiency of vital action, but produces a change in its mode, and a want of harmony in the movements of the living solid. These authors conclude that diseases of irritation are only to be cured by the removal of their cause, viz. the local disorder, by counter-irritation, and by a stimulant treatment adapted to the exigencies of the case.

Giannini, of Milan, and Bondioli, of Padua, declare that the phenomena of irritation are local in their origin and nature; in the words of the former, they are 'affections universally local;' and the general tumult and disorder are, by the latter, explained on the principle of sympathetic connexions.

Monteggia and Tommasini are inclined to consider the first impression of irritating powers, whether they be mechanical or chymical, as depressing; but that an inflammatory process is soon developed, which produces a diathesis of increased action, and demands a proper counter-stimulant treatment. Tommasini believes that the symptoms of irritation are the effects of the laceration and distention of the living fibres.

This imperfect analysis of the Italian pathology may be concluded by some account of the corresponding classification of remedies. The number of stimulants is very small; alcohol, ether, ammonia, opium, musk, the aromatics, &c. Most of the powerful agents are included in the class of counter-stimulants, and are those which are demanded in the greater number of diseases, viz. bloodletting and cold-bathing; purgatives and emetics; mercury, antimony, zinc, lead, arsenic, and iron, in their various combinations; the mineral and vegetable acids; many vegetable bitters; digitalis, aconite, conium maculatum, hydrocyanic acid, &c.

All the remedies used by the Humoralists for the purpose of expelling, or correcting, or enveloping, or blunting the offensive acrimonies; the deobstruents, the emmenagogues, the anthelmintics, the diuretics, the anti-syphilitics, &c.; all these are supposed to have a greater or less counter-stimulant, or anti-

phlogistic action. Connected with this general influence, they have an elective property which determines their actions more especially upon certain organs or systems; as tartar emetic and digitalis on the sanguineous system, and so of others.

Although the preceding observations may not lead to any valuable practical results, it is hoped that it will not be deemed amiss to have offered a short sketch of the doctrines which are maintained by professors eminent among all others for their learning, eloquence, faithfulness, and urbanity; and in schools which present to the student of medicine, advantages equal to those offered in any of the institutions that are better known and more highly celebrated, and which alone are frequented by those who seek in foreign countries the extended opportunities of study and observation, which are denied to them here by the superior condition and honest pride of the American people.

Boston, March 1826.

Desultory Outlines of Animal Life. By ELISHA NORTH, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

(Concluded from page 10.)

SECTION IV.

IF atmospheric pressure upon the veins, during inspiration, be the cause of the sanguiferous circulation, as is recently supposed by Dr Barry, an English physiologist resident in Paris; and if the absorbent system be an assistant to the plastic sanguiferous one; and if it be demonstrated by M. Bogros of Paris, that the nerves be tubes which, probably, contain a portion of the animal spirit, then it would seem that the outlines in detail of the whole mechanism of animal bodies were, at length, almost entirely ascertained; and that, too, without supposing galvanism, electricity, or magnetism, the direct cause of the vital principle.

Human beings, however, differ from other animals. For the great pleasure mankind derive from sensorial motions, or thoughts, is such, that they mentally extend into ideal, conjectural and fanciful regions; thus creating worlds of their own, far beyond the boundaries of that which is present. There is no evidence that the brute creation, for they cannot speak, possess such inventive faculties. Such a resource occasions more and greater enjoyments than the brutes possess; and

those enjoyments should be interferred with as little as possible in physiological discussions, because almost all agree in their importance.

Systems of morals, systems of education, systems of religion, varieties of language, systems of laws, varieties of government, banking and other commercial institutions, medical societies, literary institutions, Bible societies, Sunday school societies, masonic societies, &c. &c. like steam-boats and other mechanical engines originate, in a measure, from human agency, as well as from God, or the great first cause.

New London, March 4th, 1826.

MISCELLANEOUS NOTICES.

Case of Poisoning by Laudanum. By JOHN WARE, M.D.—I was called, not long since, to a child who had taken an overdose of laudanum, and although the case terminated fatally, some circumstances occurred during its treatment which appeared interesting, and of some importance. An hour had elapsed from the time of taking the laudanum before I saw the patient, which was 7 P.M. An emetic of antimonial wine and squills had in the mean time been exhibited, but without effect. The child was nine weeks old, had been afflicted for five or six weeks with hooping-cough, and for the last few days had been very sick and feeble. The quantity of laudanum stated to have been given, was five drops. Upon inquiry, however, I found that it had been dropped from a teaspoon, and that the article had been standing in a wine-glass, covered loosely with a piece of paper, all day. Upon dropping a liquid from a teaspoon, in the same way, I found that fifteen drops were equivalent to twenty-five as dropped from a common phial. I concluded from these circumstances, that the quantity taken could not have contained less than the strength of ten or twelve common drops. The child seemed to be dying. The pulse could hardly be felt, the extremities and in fact the whole surface were cold, and the respiration consisted merely in an occasional gasp. I found that the power of swallowing had ceased, or at least that the attempt to give any liquid produced an effort to cough, which was attended with the most terrible agony and contortion. A messenger was sent for the appa-

tus to draw fluids from the stomach, and in the mean time stimulants were applied to the whole body, and cold water was thrown into the face and upon the chest. Even ammonia rubbed plentifully around the head and face, and into the nostrils, produced no effect. The action of the heart was reduced to an occasional throb, the pulse had entirely ceased, and the efforts at respiration became more and more unfrequent.

Having procured a piece of the stem of a tobacco-pipe, I commenced the process of artificial respiration, and continued it for several minutes. The action of the heart was immediately renewed, and the pulse could be again felt. After waiting a short interval, during which these favourable symptoms subsided, the process was repeated and continued with short intermissions for nearly half an hour, as I should judge. At the end of this time the respiration became natural; the pulse were distinct and tolerably strong, and the heat began to return. I wrapt the child in a quantity of warm cotton wool, and it breathed well until a fit of coughing came on. Its approach was perceived by the stopping of the breathing, and a blackness beginning in the forehead, and spreading down over the middle part of the face, as deep as the ecchymosis produced by a very severe blow. The fit consisted rather of an effort to cough, than a proper cough, and was accompanied by very powerful spasmodic action in the muscles of the whole body. When this subsided, the respiration did not return till assisted by the artificial process.

This was continued at intervals, until Dr Ralph Farnsworth, for whom I had sent, arrived. He had not been able to obtain any thing better adapted for our object than a gum elastic catheter, which we did not succeed in introducing into the stomach. Dr F., however, succeeded in adapting it to the nose of a pair of bellows, and we were able, with this contrivance, to carry on respiration with greater convenience. For one hour there was no spontaneous breathing; and no air entered into the lungs except during a paroxysm of coughing, and by the artificial process. Afterwards it became more regular, and appeared so well established, that about one o'clock I left the patient in the care of Dr Farnsworth, who kindly offered to remain with it till morning. During the remainder of the night it was not necessary to resort to the respiratory process. The fits of coughing and strangulation occurred occasionally, but were followed by a restoration of the breathing without assistance. At a quarter past seven the patient was left, and visited again before nine, but was then dead. A fit of coughing had occurred, the breathing did not return after it had subsided,

and dissolution was the consequence. No message had been sent informing me of this alteration, and on my arrival the child had been dead half an hour, part of which had been occupied in an ineffectual attempt to employ the artificial process. Whether its existence could have been still prolonged, so as to ensure recovery is uncertain. My belief is, that it could not; and that the disease under which it had before laboured, combined with the effects of the narcotic, must finally have proved fatal. Still the effect of the artificial respiration in prolonging life, was, to my mind, most unequivocal; and I believe the same impression was made upon the gentleman before alluded to. Certainly when there was every reason to expect immediate dissolution, so far at least as cold extremities, entire cessation of the pulse, not only in the wrist, but, with the exception of an occasional beat, at the heart also, and a respiration confined merely to gasping for breath at intervals of a minute, would lead one to expect it—the artificial respiration produced an immediate alteration in every particular. The pulse became comparatively strong; the heat returned; and sometimes the power of natural respiration also. This did not happen once merely, but six or seven times; and always as soon as the process was instituted, and at no time when that process was not instituted, although I sometimes waited to assure myself of the fact, till I feared life was really extinct.

This method of treatment was suggested by the experiments of Mr Brodie of London, which, I believe, are well known to the profession, upon the mode in which the narcotic poisons kill animals. His conclusions are, that they have their effect through the organs of respiration; and that since it is an established fact, that their influence is transitory, if respiration can be continued by artificial means till their influence is exhausted, life may be saved. If my memory does not deceive me, the experiment was tried fully upon a rabbit, and, after a dose of opium sufficient to kill the animal, artificial respiration was established, was continued till the effects of the opium subsided, and the life of the animal thus saved. This mode of treatment seems worthy of a fair trial, and might be used in cases where the power of swallowing, and the sensibility of the stomach were lost, particularly when the apparatus for drawing fluids from the stomach could not be procured or applied.

I would only add, what may perhaps appear too trifling, that I found the pipe stem far better on every account, than any thing I had ever employed for throwing air into the lungs, and should suppose it to be particularly convenient in cases where we wish to employ artificial respiration for the resuscitation of new born children.

Observations on a peculiar Catarrhal complaint in Children. By JOSEPH PARRISH, M.D. Surgeon to the Pennsylvania Hospital.— In the course of my practice, I have met with frequent instances of a catarrhal affection, among infants; which, though bearing in its prominent symptoms a close resemblance to ordinary catarrh, is yet very different in the treatment which it demands. As it sometimes assumes an extremely dangerous character, it becomes important to distinguish it, and correctly to understand the practical indications which it presents.

The child is affected with cough and difficult respiration; and the pulse, on examination, is generally found to be more frequent than natural. Sometimes, even a degree of febrile excitement is presented, which, with the extreme difficulty of breathing, is apt to convey to the young practitioner the idea of inflammation in the lungs. But active antiphlogistic measures, so far from affording relief, are calculated to aggravate the alarming symptoms. It is not easy to point out any decided marks by which these cases may, in every instance, be certainly distinguished. I have generally observed, that the dyspnœa, though constant to a greater or less degree, is much more violent at one time than at another, assuming an irregular paroxysmal form; and the paroxysm bears a great resemblance to that of a patient labouring under asthma. The pulse, as before stated, has commonly more than its natural frequency; but it possesses little force, and is rather a pulse of irritation than of inflammatory action: in most instances it may be said to be feeble. In the severer cases, the skin becomes cold, the countenance shrinks, and unequivocal symptoms of debility are observable. A *cold cheek* is a frequent accompaniment of the disease; and sometimes occurs, when the rest of the surface is naturally, or even more than naturally warm. This I regard as one of the best diagnostic symptoms; at least, it indicates a want of action in the system, and is sufficient to guard the practitioner against the danger of hastily inferring the existence of inflammation. In the pulmonary complaints of children, I am much in the habit of laying my hand on the cheek, to ascertain its temperature; and if I find it cold, (not *cool* merely, but actually *cold*.) I consider the patient in a situation so critical as to demand very close attention. By the symptoms above described, the majority of these cases may be distinguished without much difficulty: but instances occasionally occur, in which the resemblance to catarrh, in its inflammatory form, is so close, that we can with difficulty discriminate them in any other way than by the effect of the treatment. In such instances, it is of great advantage to call in the aid of collateral

facts ; as, for example, the result of other similar cases in the same family ; and thus avail ourselves of that similarity of constitution which is so apt to prevail among the children of the same parents. An illustration of this principle will be afforded in the detail which I shall give of the complaint, as it came under my notice in the family of John H. Cresson.

As to the nature of the disease, I believe it to be catarrhal, as I have known it to occur when catarrhal fever prevailed among children ; but the dyspnœa which forms so prominent a symptom, is undoubtedly of a spasmodic character ; and, together with the disposition to sink, which is often observable, probably depends on a constitutional debility of the respiratory organs. We have in the complaint an interesting exemplification of the fact, that the same cause may, in persons of different constitutions, produce diseases requiring opposite plans of treatment.

My favourite remedies in the cases I have described, are the antispasmodics and expectorants. Assafœtida is peculiarly beneficial. I generally direct one drachm of the gum-resin to be rubbed up with an ounce of mint-water, and a teaspoonful of the mixture to be given every two hours. If this should be found too strong, I direct the mother to dilute it, till of such a strength as the child can bear, and to give a teaspoonful of the preparation thus diluted, for a dose. I scarcely ever met with a mother who could not readily graduate the strength of the article to the state of her infant. I also employ it in the form of enema, sometimes with the addition of a few drops of laudanum. I believe that assafœtida may in general be used very freely, with entire safety, in the spasmodic diseases of young children. Its exemption from any narcotic properties, enables the practitioner to give it in large and repeated doses, so as to keep up the requisite impression in cases of an urgent character.

The rectified oil of amber is another antispasmodic, to which I am particularly partial, and which I occasionally substitute for the assafœtida. Like this, it is free from any narcotic properties, and I believe is entitled to more attention than it generally receives. It may be given in the form of julep, with loaf sugar, gum arabic, and cinnamon water. I am much in the practice of using it externally, in the spasmodic diseases of infants. As a common formula for this purpose, to be prepared in families, I direct the oil of amber and laudanum, of each a teaspoonful, with sweet oil and brandy, of each a tablespoonful, to be beat into a liniment, with which the breast, and the back along the spine are

to be freely bathed. I have even added oil of amber and laudanum to poultices, to be applied to the feet.

In the intermediate hour between the doses of assafœtida or oil of amber, I usually direct a decoction of senega; and if the symptoms are urgent, push it sometimes so far as to produce vomiting.

In conjunction with these remedies, the fumes of rosin are often highly beneficial. I have known them to be received with pleasure by the infant, and to produce an immediate improvement in the respiration. If their effect should not be salutary, the patient may easily be removed beyond their influence.

But I do not trust the case entirely to the antispasmodics and stimulating expectorants. I attend to the state of the bowels, and if opening medicine is required, direct castor oil. Blisters to the breast, and the warm bath, are also useful auxiliary remedies, and should not be neglected.

* * * * *

It has before been observed, that the disease is sometimes indistinctly characterized. To exemplify this fact, as well as to show the great importance of forming a proper judgment, I will close this communication by giving a short notice of the complaint, as it occurred in the family of John H. Cresson, a respectable merchant of this city.

The parents of this family were most singularly afflicted in the loss of their children. They followed to the grave six sons in succession, all of whom died in early infancy, the oldest being only fourteen months, the youngest five. With one exception, they were all carried off by a peculiar catarrhal disease; and so fatal had this proved, that no sooner was a child attacked, than the parents considered it inevitably gone. Only a single instance of recovery had occurred, and this was in the case of a daughter, who had the complaint lightly, and passed through it without medical treatment. The three first fatal cases had been considered by the attending physicians as severe cases of inflammatory catarrh, and treated accordingly with active antiphlogistic measures. The fifth fell under my own care, and I had an opportunity of observing it from the commencement. Though convinced of the inutility of the antiphlogistic course pursued in the former cases, I could not still be certain that there was no inflammatory action in the lungs; and did not, therefore, adopt that active antispasmodic treatment which I afterwards found to be useful. The symptoms of the complaint were those of catarrhal fever, with cough, steady difficulty of breathing, and more apparent action than in the cases which I have before described. In the instance

which came immediately under my own care, I had an opportunity of making an examination after death. On inspecting the lungs, I discovered not the least vestige of inflammation. There was some effusion into the bronchial tubes; but it was such as often occurs, not only where no inflammation has existed, but also in cases of extreme debility. From the result of this examination, I inferred that there was, in the pulmonary organs of these children, a debility, which both invited disease, and after its attack, prevented a return to healthy action. With this view, I concluded that some prophylactic treatment, calculated to invigorate the lungs, was all-important; and it occurred to me that this end might be answered by subjecting the surviving children, and those which might yet be born, to the action of the fumes of rosin, frequently applied. The parents were, accordingly, requested to put the plan in operation; they did so, and the children were made every day to inhale the resinous fumes. An infant son, born some time after the death of the last child, was, from its birth, subjected to this prophylactic treatment. In process of time, I was summoned to visit him, labouring under the terrible malady, and found him exceedingly ill. In the treatment, all idea of inflammation was laid aside, and the following plan adopted. The room was filled with the fumes of rosin; and the child was so much relieved by them, that he would play in them with apparent delight. A blister was at once applied to the breast, and the bowels were opened with castor oil; but I am inclined to believe, from what I have since seen, that a little time was lost in waiting for the operation of the medicine. After the bowels were opened, a mixture was prescribed, containing the rectified oil of amber and the tincture of balsam of Tolu, which was alternated with the decoction of senega. Each dose of the mixture contained about three drops of the oil of amber. This plan was steadily pursued, and I had every reason to be delighted with the result. The child perfectly recovered; and this was the first instance in which a son had passed through the disease.

After this, I attended, in the same complaint, two other children, both females, one of whom was extremely ill. In these, I immediately directed the decoction of senega, alternated with the oil of amber; and an obvious improvement took place in less than twenty-four hours. Similar auxiliary measures were pursued, as in the former case, and both children were in a short time restored to health. .

Other instances of the disease have subsequently come under my notice, and I have now attended five cases in the family,

all of which were treated on the same plan, and with the same success.—*North-American Med. and Surg. Journal.*

A case of temporary loss of power over the Muscular System.
Arranged from the Notes of Dr MONGES, of Philadelphia.—
A. I. M., about 54 years of age, of a sanguine nervous temperament, and who had been labouring for some time under chronic inflammation of the lungs, was seized unexpectedly, in the year 1813, with apoplexy; from which, by means of the usual remedies, he was relieved. His left side, however, remained imperfectly paralyzed—sensation continuing unimpaired, and the power over the muscles not being completely lost. Nevertheless, whenever he attempted to make use of the limb, it felt, to use his own language, ‘as if it did not belong to him.’ From the period of this attack, he continued to complain of a great determination of blood to the head. The carotid arteries were sensibly enlarged, and their pulsations, as well as those of the vertebral arteries, morbidly increased; and when he inclined his head on his pillow, or against a wall, or back of a chair, they became very distressing. Independently of this, he experienced so unconquerable a drowsiness, as to fall asleep in the midst of the most entertaining conversation. Under these circumstances, he was much troubled with noise in the head; which he very often compared to the sound of a kettle-drum at a distance, and could not incline his head in the least degree downwards, without instantly suffering from vertigo.

It is unnecessary to detail the treatment adopted for the removal of this morbid state, as it did not vary from that usually resorted to in similar cases. Nor should pains have been taken to detail symptoms which must be so familiar to all practitioners, had they not preceded and accompanied others of less frequent occurrence, and which, it is believed, will not prove destitute of interest to the readers of the Journal.

About a month after the attack of apoplexy, and whilst suffering under the cephalic affection just described, the patient presented the following symptoms. When in a recumbent posture, and laying on his back, he would suddenly lose all power over his muscular system, and was, in fact, in a state allied to paralysis. If his eyes were open, as they often would be, at the moment of the attack, he saw perfectly all that was going on around him; and always heard distinctly every thing that was said near him, as well as the piano in the parlour under his bed-chamber, or the servants conversing in the adjoining room. During these attacks, the intellectual faculties ac-

quired activity. Entertaining the idea, that this state was the forerunner of death, every object of interest to him would revert to his mind with great rapidity. His children would be a subject of frequent thought; and in very many instances, circumstances that had entirely escaped his recollection, and of which, in another condition, he would probably not have thought, would recur to his mind. Whilst thus situated, his ideas were as clear as in the interval of the fits, and the recollection of them afterwards was perfect. He often made every effort imaginable to speak or move, but invariably failed in the attempt. Nor did he experience any unpleasant sensations in any part of his body, with the exception of the cerebral symptoms already described; but the mental anxiety, arising from a reflection on his present condition, was inconceivably great.

In respect to the duration of the paroxysms, it is difficult to form a correct idea; though, from many circumstances, the patient is led to conclude that it did not exceed ten or fifteen minutes; and their cessation was announced by a sensation of pricking in the skin of the feet, which, in a very few seconds, pervaded the whole body, and extended as high up as the scalp. Whenever this occurred, the power of volition suddenly returned; and the patient, happy to be freed from so distressing a state, and aware that it never returned whilst he remained in an erect or sitting position, would spring out of bed, and make a trial of his faculty of speech. These attacks never occurred more than once in the course of four-and-twenty hours; sometimes, in the day, at others, in the course of the night; nor did they manifest any regularity in respect to the intervals between their return.

After distressing the patient in the manner described, during more than two years, they finally disappeared, together with the cephalic symptoms to which we have alluded. As the assistants were never aware of the exact moment of the attack, it was not ascertained whether the limbs would retain, as they do in catalepsy, the position in which they are placed; but from his feelings, and inability to govern his muscles, the patient is inclined to the belief, that, had the experiment been made, such would have been found the case. It is proper to mention, that the patient recollects to have had, when only seven years old, an attack bearing some analogy to the disease we have described. It seized him whilst walking—continued but a few moments, and did not appear again until the present attack.—*North American Med. and Surg. Journal.*

On the Non-Mercurial Practice in Syphilis. By THOMAS HARRIS, M.D. Surgeon of the United States Naval Hospital at Philadelphia.—* * * In the year 1819, the Naval Hospital on the Philadelphia station, was placed under my direction, which afforded me an opportunity of testing the powers of the alterative method of treatment. As the men in this establishment were under my exclusive control, and as they could receive no medicine, or diet, which was not prescribed by myself, I felt assured, that there could be no deception in the result of my cases.

My first patient was affected with ulcers of ten days standing, situated on either side of the frenum, and accompanied with so much inflammation, as to render the retraction of the prepuce extremely difficult. Possessing all the characteristics of the Hunterian chancre, and thus indicating, according to CARMICHAEL, the use of mercury, I at once concluded, that the result of my treatment in this case, must greatly influence the course of my subsequent practice.

To subdue the general arterial excitement, as well as local inflammation, he was bled and purged repeatedly; saturnine lotions were applied to the inflamed part, and the patient required to confine himself to a horizontal position. After the inflammation was thus removed, the ulcer was washed, once a day, with a solution of sulphate of copper; and the patient directed to drink freely of the decoction of the woods. Under this treatment, the chancres so rapidly improved, that on the sixteenth day they were entirely cicatrized. This patient remained on the Philadelphia station for two years afterwards, without the slightest symptom of secondary syphilis.

The next patient had an excavated ulcer of the glans penis, with incipient bubo, of eight days standing. This case was attended with some arterial excitement, and great derangement of the digestive organs. I pursued the same depletive plan, as in the former instance, together with rest, and a low diet. After the patient was sufficiently reduced, the solution of sulphate of copper was applied once a day to the chancre, and the tobacco ointment was kept continually in contact with the bubo. On the nineteenth day, the ulcer was healed, and on the twenty-sixth, every vestige of the bubo was discussed. The patient remained on the Philadelphia station, thirty months after treatment, without any secondary symptoms.

Such flattering results awakened confidence in this system, and encouraged me to persevere. With the exception of three cases, in which I prescribed alterative doses of mercury, I have not used it in any form of the venereal, for the last six

years. Two of these cases were indolent swellings of the groin, of doubtful character; and the other, a superficial ulcer, situated on the internal lining of the prepuce, accompanied with inflammation of the conjunctiva, and slight opacity of the cornea. The mercurial treatment in these instances, proved serviceable, as it doubtless would have done, had such symptoms arisen from any other cause.

During this period, I have had under my care, one hundred and sixty-four cases of venereal, in all its various primary forms. Fifty-three of these were private patients, and one hundred and eleven were attended in the Naval Hospital.

In all cases, the general remedies were regulated by existing symptoms. As the disease was, in most instances, connected with constitutional disturbance, I often found it necessary to bleed, and always to purge freely.

Believing that the primary venereal affection never produces constitutional symptoms, excepting under a particular state of the system, I think it of great importance to bestow attention to the general condition of the constitution. With this view, principally, I prescribe, with other suitable remedies, the warm bath once or twice a week, and the decoction of the woods. These remedies promote that healthful action of the surface, on which is dependent the proper performance of all the other functions of the body. To this treatment, particularly, I am disposed to attribute the rare occurrence of secondary syphilis in my own practice.

The topical remedies were varied according to circumstances. When there was much inflammation, either poultices, or cooling lotions, were applied, until this symptom was subdued. Afterwards, the ulcer was treated with either the black-wash, composed of calomel and lime water, or with the cupreous solution, of the strength of ten grains of the sulphate of copper to the ounce of water. If this solution be applied oftener than once a day, it does injury, by exciting inflammation. When a more powerful escharotic is indicated, the lunar caustic may be resorted to with advantage. In venereal ulcers, I have generally found the unctuous applications injurious.

Among the fifty three private patients, whom I had thus treated, for the primary affection, there did not occur, to my knowledge, a single case of constitutional disease. A few of this number were strangers, it is true, of whom I lost sight, soon after I had pronounced them cured. The majority of them, however, I am in the custom of seeing frequently; and several of them are married, and blessed with healthy children.

Of the number treated in the Naval Hospital, which was one hundred and eleven, two cases only were followed by secondary symptoms. The first patient was affected with pustular eruptions, which occurred five weeks after being cured of an obstinate and virulent gonorrhœa. The other was a case of mild tubercular eruption, which appeared while the patient was under treatment for an excavated ulcer of the glans penis, accompanied with a bubo in the left groin. Both these cases yielded to the alternate use of the decoction of the woods, and the nitro-muriatic acid, in connexion with warm bathing. Not one of the patients, whose primary sores were treated on the non-mercurial plan, were subsequently affected with either ulcerated throat, or disease of the bones.

Since I have abstained from the use of mercury, in the management of this disease, twenty-three cases with secondary symptoms have come under my care. A few of these were my public, and the remainder my private patients. They had all been treated on the mercurial plan, by other practitioners; and, no doubt, according to the rules prescribed for the exhibition of this mineral. To the liability of patients who have been salivated, to receive cold, which, as I have already stated, is the ordinary exciting cause of secondary symptoms, I attribute, in some degree, their frequent occurrence. I have not assumed the privilege of deciding, whether the twenty-three cases were, for the most part, venereal, or mercurial. Nor are those nice and difficult discriminations, of much practical importance, if the patients be treated according to the alternative method. These cases were all perfectly cured, without the use of a single grain of mercury. Several of them proved tedious, it is true; but having acquired confidence in the non-mercurial practice, I persevered, and was ultimately rewarded with success. Whether, or not, the cure would have been expedited, in some of those cases, by the use of mercury, is altogether a matter of conjecture.

In many instances, this medicine makes a most salutary impression on the venereal disease; in some, it effects a cure even more tardily than in the cases to which I have referred; and in others, it greatly aggravates every symptom. We have not yet acquired sufficient tact, to enable us to select the precise cases for which this valuable medicine is particularly adapted. This faculty of discrimination does not consist in being able to reduce the several forms of the disease into different classes; but to anticipate the effects of the mineral, upon every peculiar temperament and idiosyncrasy. Such prescience has not been accorded to short-sighted mortals.

The following tables will exhibit a compressed view of the result of my practice. This view would be more satisfactory, provided I were able to notice the character of every different form of the primary disease, from which the constitutional affection emanated. In a majority of the cases, I have not been able to obtain any satisfactory history, in consequence of their being attended for the original disease, on other stations, and by other surgeons.

<i>Character of the Primary cases.</i>	<i>Average number of days under treatment.</i>	<i>Number affected with Secondary symptoms</i>	<i>Character of the Secondary cases.</i>
Hunterian ulcers,	19	None.	
Hunterian ulcers, in connexion with bubo,	26 $\frac{1}{4}$	None.	
Non-Hunterian ulcers	23 $\frac{3}{4}$	None.	
Non-Hunterian ulcers in connexion with bubo,	37	1	Tubercular and scaly eruptions.
Gonorrhœa,	17	1	Pustular eruptions.
Gonorrhœa in connexion with bubo,	38	None.	

<i>Character of the Constitutional Disease.</i>	<i>Average time required for the cure.</i>	<i>Number of patients who have experienced a recurrence of the constitutional disease.</i>
Papular, tubercular, and scaly eruptions,	47 days.	None.
Tubercular eruptions, with ulcerated throat,	77 days.	One.
Ulcerated throat, with affections of the bones,	9 months.	None.
Ulcerated throat, with periostitis,	4 months.	None.
Tubercular eruptions, with disease of the bones,	13 months.	None.

It will be perceived, that I have noticed gonorrhœa as one of the primary forms of syphilis. In this view of the subject, I am sustained by the recorded opinions of HUNTER, HENNEN, GUTHRIE, JACOBS, JOURDAN, LAGNEAU, and many other distinguished surgeons.

I am aware, that a majority of enlightened practitioners consider gonorrhœa and chancre as distinct diseases; but the

weight of authority is decidedly in favour of their identity of character. The experiments of HUNTER, which were said to have been performed upon himself, go far to establish this point. By inoculating himself with the matter of gonorrhœa, he produced a legitimate chancre, which ultimately produced constitutional syphilis.

These experiments were repeated under the direction of Mr BENJAMIN BELL, and with what *he* supposes, different results. He admits, that sores were produced by the inoculation; but as they were cured without mercury, he inferred that they could not be truly syphilitic. Such an argument, in the present age, will be of little avail, and cannot, in any degree, affect the validity of Mr HUNTER's experiments.—*North American Med. and Surg. Journal.*

Account of the Present State of Medicine in Italy, by FR. W. OPPENHEIM, M.D.—The above is the title of an article in a late Number of the Magazine of Foreign Literature, an excellent medical work, edited in Hamburgh by Dr Gerson and Dr Julius. It contains much interesting matter, from which we have made a selection, calculated to give a correct idea of the state of medical science in Italy, and to serve as a guide to those who visit that country for the purpose of adding to their stock of professional information.

Our author describes the institutions of the Italian States, according to the order in which he visited them, beginning with the kingdom of Sardinia, in which there are two Universities, one at Genoa and one at Turin.

In the Genoese University ten professors are employed in teaching the different branches of Medicine and Surgery. None of these professors however enjoy much celebrity; practical anatomy is shamefully neglected, and there is no anatomical museum. The languishing state of science in this University, is attributed by our author to its being under the direction of the Jesuits, who are in possession of its revenues, and expend considerable sums upon the purchase of theological books, while they almost entirely neglect, or give but little encouragement to the cultivation of Natural History, Comparative Anatomy, and the other departments of medical education. During the short-lived constitution of thirty days, the students ranked themselves on the side of the anti-royalists, in consequence of which, the University was closed for three months, upon the return and restoration of the king.

The population of Genoa amounts to 90,000. It has two civil, and one military hospital, besides a work-house.

The *Ospedale Pammatone* is very large, and externally resembles a palace more than an hospital. Its pillars, stairs and balustrades, all of Carrara marble, lead the stranger to expect a commodious interior. But here he is miserably disappointed, and finds a total want of every thing suited to promote the health or comfort of the patients. The wards are very spacious, but badly lighted, imperfectly ventilated, and extremely filthy. The floors are made of tiles, half worn out, and scarcely ever cleaned. The bedsteads are of iron, have no curtains, and are ranged in three rows, two of which are so close to each other that they touch.

The patients are attended by nuns, belonging to the order of *Nostra Donna del Rifugio*. Three physicians and four surgeons are attached to this institution, which has 1600 beds, but is capable of containing 4000. When our author visited it in 1824, the number of patients amounted only to 826. Post mortem examinations are here very rare, and the anatomical cabinet consequently very poor, containing only about a dozen dried preparations, and one skeleton! In 1821, the admissions amounted to 9344; the proportion of deaths to recoveries as 1 to 6.

Spedale degli Incurabili, is a handsome but badly situated building, containing 1000 beds, and destined for the reception of the aged, the poor, and the insane. Patients of the latter description occupy a separate wing of the building. Their wards are spacious, but here again we meet with three rows of beds; and our feelings revolt at the situation of these wretched beings, the greater number of whom are chained hand and foot to their iron bedsteads! Where such a mode of coercion is employed,—where the strait waistcoat is unknown,—where the physicians, Drs Isola and Timoni, (we wish not to conceal their names,) hurry daily through this abode of misery, without giving a single direction to the nurse-tenders concerning the treatment of the patients, can we wonder that a cure is scarcely ever effected? We are sorry to find, that disgusting as such a scene must be, it is even surpassed in an asylum at Vienna, where Dr Oppenheim has seen the lunatics not only chained, but caged, like beasts in a menagerie!

We feel particularly anxious that such a state of things should not exist unknown, and consequently unredressed. What Dr Oppenheim has already disclosed to our professional brethren in Germany, we think our duty to publish in Great Britain, in the hopes of thereby contributing to promote a reformation in the treatment of lunatics in Italy, the first step to a reformation being to attract public attention to the extent and nature of the

abuse. While we feel it our duty to record this barbarous treatment of lunatics in one of the first cities in Italy, we are yet far from wishing to stigmatize the Italian character as inhumane, or their physicians in general as ignorant, for we ourselves recollect the existence, and that at no very distant period, of abuses not less enormous in Great Britain.*

Dr Oppenheim is doubtful whether to attribute to absolute want, or a degraded state of national character, the alms-begging which prevails in the Italian hospitals. 'As I passed each bed, he observes, its sickly tenant stretched forth his meagre arms to implore for charity !'

Albergo dei Poveri, a splendid building, adorned with costly architectural ornaments, but deficient in more essential qualities. It contains 2000 persons, consisting of the poor, the aged, and many orphans. The internal management of this institution is much better than that of those already described. The paupers and orphans appeared clean, well clothed, and well fed.

In Genoa there are also a military hospital containing 800 beds, and an institution for the instruction of the deaf and dumb. The latter was founded in 1801, by the Abbé Octavius Assarotti, who still presides over it, and pursues nearly the same mode of instruction as is usual in France. In Italy, as elsewhere, this malady has been observed to be much more frequent among the poor than among the rich. The state of this institution, which contains 20 boys and 12 girls, is highly creditable to the Abbé.

Turin, for a population of 80,000, has four civil hospitals. That of S. Giovanni is the largest, being capable of containing 600 patients. But at the time of Dr Oppenheim's visit, there were not more than 200 in it. The wards are large, and well ventilated. The proportion of deaths to recoveries, out of 4557 patients admitted in 1821, was as one to seven. There is a clinical ward in this hospital, containing 20 beds.

* For an account of the dreadful and even appalling abuses in British Lunatic Asylums, see an Article on that subject in the Edinburgh Review, August 1817. See also the Report of a Committee appointed by the Irish House of Commons, to examine into the causes of the mortality observed among the children admitted into the Foundling Hospital in Dublin. Two-thirds of the children admitted perished from neglect or maltreatment. The cause of death in many cases was opium, in the form of a mixture, left in the hands of the nurses, who administered this sedative when the children became uneasy, or cried perhaps from hunger. Great numbers of *healthy* children were put at once into the condemned or venereal ward, in which, of course, no wet nurses were employed, and the infants were so negligently attended, that a majority of them perished in the course of a few days. This practice had existed for many years, during which it was *proved* to have been fatal to many thousands. The physician of the hospital, during that period of infantine slaughter, obtained the name of *Herod the Great* !

Casa dei Pazzi contained 260 lunatics, of whom more than one-third were chained. Their situation seemed even more deplorable than that of their fellow-sufferers at Genoa. Although there are three physicians and three surgeons attached to this asylum, yet Dr Oppenheim could not discover that any curative measures were ever employed.

The University of Turin has eleven medical and surgical professors. The number of medical students generally amounts to nearly 100. The medical practitioners of the kingdom of Sardinia are much divided as to the systems they pursue. The juniors who have studied in Paris adhere in general to the doctrines of Broussais. Some of the seniors are still Brunonians; and, what is singular, the younger Rasori has many fewer followers than might be expected.

The Grand Dutchy of Tuscany has one University at Pisa, and three medical academies, viz. at Florence, Pistoia, and Sienna. In order to obtain a license to practise, the student must not only have attended an hospital in one of the above towns for seven years, but must have practised during that period under the direction of the clinical professor, and must finally submit to an examination. Even those who have taken the regular academical degree of M.D. elsewhere, must attend one of the Tuscan hospitals for two years, before he is allowed to enter on private practice.

The academies at Pistoia and Sienna are too inconsiderable to claim attention. Our author therefore passes at once to the University of Pisa, which has nine Medical and Surgical Professors. There is here, however, no school for teaching midwifery.

The University building is small and inconvenient, and contains a few lecture rooms, besides an Anatomical and Surgical theatre, but the latter is so badly lighted, that most of the operations are performed in the former.

The medical courses commence in November, and conclude in August. The students of medicine amount to about 200, of whom many are Greeks. Dr Oppenheim had an opportunity of hearing one of the lectures on anatomy, and declares it was the worst he ever heard.

We shall give our author's account of the Medical Institutions at Pisa, in his own words.

'*Ospedale Santa Chiara é Casa dé Trovatelli* contains 300 patients—the wards are clean, spacious and lofty. The medical and surgical patients, in this as in the other Italian hospitals, are not separated from each other, but lie in the same ward. There is a clinical ward with twelve beds for the treatment of

medical cases, under the direction of Professor Morelli, besides one for surgical cases, under the direction of Professor Vacca Berlinghieri. The attention of these professors is not however confined to the clinical patients, for they make remarks upon every interesting case in the hospital. The surgeon's visit is made at seven in the morning, the physician's at ten. The hospital pupils here, as in all the other Tuscan schools, wear a particular uniform, consisting of a red surtout, and a white apron; as the domestics of the hospitals are similarly dressed, they are scarcely distinguishable from the students. Professor Vacca Berlinghieri is extremely polite to strangers, and is very communicative upon professional subjects. I shall relate what I saw and heard while in his company. His method of lithotomy* is well known from his three memoirs on that subject. His success has undoubtedly been considerable; for of 29 patients upon whom he has operated, he has lost but two, and of these, one was more than 64 years old. I saw two persons upon whom he had operated; one was a boy 4 years old, who had been cut for the stone five days before. He seemed to be doing well, the greater part of his urine being already voided through the urethra, while the wound was beginning to heal. The other was a very melancholy case of a young man, on whom the operation had been performed 14 weeks previously to my visit. The stone had been broken in the first attempt to extract it, and the fragments were successively removed, great care being taken by the Professor to leave no part of it in the bladder. He used injections and every other usual precaution, but nevertheless, and although the wound had assumed an healthy appearance, the patient complained of calculous pains on the twelfth day, when the Professor discovered another piece of the stone in the bladder. In removing this he made no new incision, but merely dilated the original wound with his finger. This fresh irritation caused a violent inflammation of the parts, and the swollen part of the rectum, which had performed the office of a valve in preventing the feces from entering the bladder, sloughed away, so that a fistulous opening was formed between the rectum and the bladder, and the urine was consequently evacuated partly *per anum*, and partly through a catheter introduced into the urethra. When the catheter was introduced only as far as the neck of the bladder, the urine flowing through it was mixed with fecal matter, but when it was pushed higher, towards the fundus, the urine was natural. When I saw the patient, he was less hectic than

* He opens into the bladder from the rectum.

he had been, but still the fistulous opening into the rectum remained ; its calibre was however diminished. When this operation had been revived in France by Sanson, and improved in Italy by Vacca, who merely makes an incision into the neck of the bladder, it excited much attention, and was practised by many French and Italian surgeons with considerable success. Scarpa however urged many objections against its safety, the most important of which was the danger of wounding the vesiculae seminales. To this Vacca replied by stating, that of 80 patients thus operated on, none had felt a diminution of their sexual powers. It is very remarkable that so celebrated a surgeon as Dupuytren should have so suddenly changed his opinion concerning the propriety of this operation. He now declares himself decidedly hostile to it, and yet when I was in Paris in 1823, he was quite enthusiastic in its favour, for I heard him say, that the number of patients who suffered from a fistula after this operation, was not greater than that of those who died after any other !

‘ Calculous complaints are very rare in the neighbourhood of Pisa, and the majority of the cases operated on by Vacca, come from Bologna, Genoa, and the Piedmontese countries, whose population subsist almost entirely on vegetable nutriment ; a fact proving that the formation of stone does not depend upon a superabundance of nitrogen.

‘ Diseases of the large arteries are so unfrequent at Pisa, that there had been no operation there for aneurism during ten years.’

Dr Oppenheim however saw at Pisa one case of popliteal aneurism in a healthy man. It is singular that Vacca refused in this case to perform the operation ; alleging as a reason, that he believed the patient’s blood possessed too little *plasticity*,* and the arterial coats had too much inclination to suffer from distention or rupture, to authorize a reasonable hope of successful termination. He could not assign any intelligible grounds for this opinion, which was however justified by the event, for another surgeon having performed the operation, hemorrhage took place on the third day, which was stopped by tying the femoral artery above the origin of the profunda. This resource proved also ineffectual ; for a fresh hæmorrhage occurred in three days after, and the patient died.

Dissection showed that all the coats of the artery had been divided by the ligatures, while no sufficient coagulum had been formed, and no attempt made towards the exudation of coagulable lymph.

* The probable meaning of this expression is, that the blood was deficient in coagulable lymph.

What symptoms Vacca conceived to contraindicate the operation in this case, we, as well as Dr Oppenheim, are unable to guess.

‘Fistula Lachrymalis is a very frequent disease at Pavia, and Vacca has observed it to occur in women more frequently than in men, in the proportion of 7 to 1. His operation consists in making an opening into the sac, with a small strait bistoury; he afterwards widens the sac with a fine silver probe, and introduces into the duct, a bit of extremely fine catgut, having a silk thread fastened to its upper extremity, by means of which it is secured above. In the course of a few days the lower end of the catgut is forced through the nostrils by blowing the nose; it is then drawn down and detached from the silk thread, to which he fixes a small dossil of charpie, and is thus enabled to introduce the latter, from below upwards, into the lachrymal sac. The advantage of this method is, that the dossil being introduced into the sac through the lower opening, the superior external opening need not be enlarged or stretched so as to render it liable to inflammation. Vacca insists upon the necessity of dividing the tendon of the orbicularis muscle in this operation, as a portion of the sac lies directly under this muscle, and of course cannot be touched with the necessary escharotics, and if this be not done, he contends that this portion of the sac will remain in a state of inflammation and will occasion a relapse of the disease. In my opinion the division of this tendon cannot be effected, without danger of also dividing the lachrymal duct.

‘One of the most interesting cases I saw at Pisa, was an emphysema caused by fracture of the ribs on the right side of the thorax, together with injury of the pleura and lung, but without any external wound. The patient was brought to the hospital five days after the accident, when the emphysema was excessive, and had extended over the entire of neck, chest, abdomen and scrotum. The patient felt very little pain, and was quite free from the usual symptoms, cough and expectoration of blood. He could lie on either side, but preferred lying on the uninjured side. His respiration was free, and he could make a deep inspiration without its causing uneasiness. The transverse fracture of the rib was quite evident on examination. This case is certainly extremely interesting, and seems inexplicable. Under other circumstances it would have been necessary to make an immediate incision, but Vacca merely applied a few leeches, and the disease disappeared gradually.

‘I saw here also a case of peculiar induration of the mammary glands, in a strong healthy woman aged 30, who had

been but a few days in the hospital. Both breasts were equally affected, and were of a stony hardness; the indurated glands were moveable, and the skin immediately covering them was very red, while in every other part of the breast, it was quite natural as to colour. The temperature of the affected parts was elevated and the nipples as it were pressed inwards. The woman said that the disease had commenced suddenly and without any assignable cause, about seven years before, since which it had remained in the same state.

‘In every other respect she felt herself remarkably well, did not feel any pain whatsoever in the breasts, and had no disorder of the digestive organs. There was no suspicion of syphilis, and the malady bore not the least resemblance to scirrhous; for *both* of the mammary glands were attacked at the same time, their temperature was increased, and the skin red. This disease too had remained nearly stationary from the time of its first origin; and in its form the swelling did not at all resemble scirrhous, being destitute of the knotty elevations and inequalities so peculiar to that affection. The axillary glands were quite healthy.

‘Vacca treated this disease as a case of chronic inflammation. He commenced with a venesection, the woman’s constitution being very strong; and he afterwards applied leeches to the part, and cloths moistened with aqua laurocerasi. I saw this treatment continued for three days without effect.

‘The operation of trepanning, which I never saw performed in France, and but once in England, during a very diligent attendance on the hospitals in both these countries, is by no means of rare occurrence at Pavia. Neither are its results on the whole unfavourable. In two cases a perforation was made through the mastoid process, for the purpose of giving exit to matter formed in its cells, in consequence of otitis. Vacca has lately abandoned an operation he was formerly in the habit of performing frequently, I mean tying the saphena vein in cases of varix and varicose ulcers. The success of this practice was for a time considerable, but cases afterwards occurred, in which dangerous symptoms were occasioned, such as violent inflammation of the vein. In a few instances this inflammation proved fatal.’

Dr Oppenheim observes, that an operation occasionally attended with such dangerous consequences ought never to be undertaken for the relief of a complaint in itself destitute of danger.

We subscribe most willingly to this opinion, having ourselves learned from an extensive experience the uncertain issue of

tying the saphena vein. One case we shall not easily forget. A young person, otherwise enjoying perfect health, was admitted into an hospital in order to undergo this operation. It was performed. Inflammation of the venous system supervened, and the patient died in a few days! For farther information on this subject, see Hodgson on Diseases of the Veins and Arteries, Mr Carmichael on Varix and Venous Inflammation, Dublin Hospital Reports, Vol. 2d, and an excellent article on 'Varices' in the Dictionnaire des Sciences Medicales.*

Florence.—Population, 80,000.

There are two hospitals, besides a foundling hospital.

1. Spedale de Santa Maria Nuova, capable of containing 1200 patients, but Dr Oppenheim found in it only 600 in April 1824. The wards are large and lofty. The lower wards are in the form of a cross, and contain from 150 to 200 beds. They are badly ventilated, and uncleanly. Six physicians and six surgeons are attached to this Institution, and attend in rotation, each for one month. Dr Oppenheim blames this practice, as subjecting the patients to a constant change of treatment. The clinical wards of this hospital contain 50 beds, and what is remarkable, almost all the operations are performed by the pupils, of course, however, in the presence of the professors. Dr Oppenheim saw here many cases of compound fracture, which were treated according to Dupuytren's method. He saw a case of medullary sarcoma affecting the testicles; castration was performed, but in five days a new fungous growth began to arise from the wound.

Another melancholy picture was presented, by a case of fungus of the antrum highmorianum, which had forced its way into the mouth. Indeed I do not think I ever visited an hospital containing so many desperate diseases, such as hopeless cases of morbus coxarius, cancer, and abscesses, attended with confirmed hectic. Fistula lachrymalis is here also common;

* In varix of the lower extremities we have never, when the disease has been of long standing, been able to find valves in the diseased veins. Our attention was drawn to this point by Mr Hewson of Dublin. When a portion of the saphena vein in such cases is excised, it immediately contracts so as scarcely to admit the passage of a probe. The inner coat of the vein is then found corrugated into longitudinal folds, while the external is considerably thickened, and possesses much elasticity and strength. This state of the vein appears necessary for resisting the increased pressure its coats have to bear when deprived of the mechanical assistance of the valves. This species of varix we would call *active varix*; to distinguish it from a much rarer species, in which great varicose distention of the veins takes place, without any increase of thickness in their coats. This we should call *passive varix*; it occurs in all parts of the surface of the body. We have been favoured by Dr Grâves with a drawing of a woman at present in the Meath Hospital, Dublin, in whom the face, body, upper and lower extremities are disfigured with the latter species of varix. The disease commenced about her twentieth year.

and I had an opportunity of seeing some cases of suppuration within the substance of the mastoid process, one of which proved fatal, from caries and effusion of matter in the dura mater. It was attended with symptoms of cerebral compression.'

Scrofula in all its forms, such as tubercular phthisis, caries of the bones, &c. is not less frequent here than at Pisa. The Italians administer occasionally muriate of barytes in this affection, and Vacca often sends his scrofulous patients to the sea for the benefit of bathing.

The operation for cataract employed both at Florence and Pisa, is depression or else reclinature, the needle being introduced through the sclerotica.

2. Ospedale di St Bonaficio, destined for the reception of lunatics, incurables, and those afflicted with cutaneous complaints, is capable of containing 1000 patients. The lunatics are here much better treated than at Pisa or Genoa; they are never chained, but are subjected to much milder modes of coercion, such as the strait-waistcoat; dark rooms having the walls lined with padding, to prevent the patients from injuring themselves, are used for the confinement of persons during the accession of the maniacal paroxysm. There is no care taken to provide amusements or employment for the patients, and on the whole, their *moral treatment* is entirely neglected, so that Dr O. justly remarks, it ought to be called an Asylum, not an Hospital for lunatics, the latter name implying the application of proper curative means; the consequence of this neglect is, that a cure is scarcely ever heard of.

Foundling Hospital.—A well-managed Institution, which receives annually from 1500 to 1800 infants. They are well taken care of, and remain one year in the house, after which they are sent to the country. The bed-steads are of iron, and each contains four separate divisions, in which are placed four children's beds. This arrangement facilitates the attendance of the nurses upon the children.

The diseases observed among the foundlings are not numerous. Inflammation or blenorhoea of the eyes, is uncommon, a circumstance probably owing to the exclusion of a glaring light from the wards, and to their cleanliness and proper ventilation. Jaundice and induration of the cellular membrane, are quite unknown here. A great number of children *are said* to fall a sacrifice to syphilis: when brought into the house, they are apparently healthy, but in the course of a few weeks or even days, they become pale and thin, cry or rather *whimper* much, get an appearance of old age in the face, and often become covered about the genitals, anus, &c., with pustules and small ulcers.

They grow cachectic, and finally die in a state of marasmus. The exhibition of mercury in this affection is found to be quite useless. I myself concur in the opinion of Dr Breschet of Paris, who has observed a similar complaint among the infants in 'L'Hôpital des enfans trouvés,' but does not conceive it to depend upon syphilitic taint. His observations render it probable that it arises from an insidious inflammation of the abdominal viscera, a view of the subject confirmed by the diminution in its mortality, since a mode of practice founded on this view has been adopted.*

A small lying-in hospital, containing six beds, erected for the instruction of the Tuscan midwives, is connected with the Foundling Hospital. In order to obtain a license to practise midwifery, the females must attend three courses of lectures on that subject, besides which, they must reside 18 months in the Institution. The anatomy of the female pelvis is taught, by means of beautiful wax models, which can be taken to pieces.

Puerperal fever is rare at Florence. On an average, twins occur 5 times in the 100. The Cæsarean operation has been performed twice there, and in both cases was unsuccessful. The midwifery practice seems on the whole judicious, and the accoucheurs are not addicted to the unnecessary use of instruments in delivery. Professor Bigeschi speaks highly of the Ergot, as a means of forwarding the progress of labour in tedious cases.

* The species of itch, termed by German authors *crusta serpiginosa*, the true nature of which was first pointed out by Professor Autenrieth, is also frequently looked upon as syphilitic. *When of long standing*, the child becomes miserably emaciated, in consequence of the constant cutaneous irritation and want of sleep, while the whole surface of the body, together with the scalp and face, are covered with a papular eruption, the papulæ of which are inflamed, so that when they become very numerous, the skin assumes a red or copper colour, and extensive desquamations take place, together with superficial ulcerations about the anus, folds of the thigh, &c.

Here we shall only remark,

1st, That we have seen two cases of true pustular itch affecting the ears and face in adults. 2dly, That we believe the face in adults is so rarely affected with psora, only because constant exposure to the air tends to harden it, so that it is less liable to suffer from the contact of infectious matter. The hands are, it is true, equally exposed, but they only suffer in those parts which, by their situation, are less exposed, and consequently covered with a more tender cuticle, viz. between the fingers, the wrists, &c. 4thly, The face in infants does not enjoy this immunity from psora, because in them its cuticle is scarcely less tender than that on other parts. 5thly, When a *nurse and child*, both free from itch, are exposed to its infection, the disease *always appears first upon the child*; in other cases the nurse escapes at first, while the child, being more susceptible of the infection, gets the disease, which it communicates to the nurse, in whom it will be then observed to appear first on the arm most used in supporting the child. These facts are always brought forward by the nurse as proofs that the disease is not the itch, but a spontaneous eruption occurring first on the child, and communicated to her. We have made these remarks in order to show the futility of the opinion which absolutely denies the psorous nature of any eruption which affects the face, and in order to lead to a more rational practice in this troublesome cutaneous affection of infants.

‘ I must not omit mentioning the celebrated Florentine wax-works, which exceed the Vienna collection, not only in number, but in execution and anatomical accuracy. What has been added lately, is inferior to the old collection, especially in the colouring. I shall never forget my astonishment at seeing a representation of the distribution of the fifth pair of nerves. It left nothing to be wished for, and had every branch described by a *Bock* or a *Meckel*. In fact, on examining it, you could not determine which was the more to be admired,—the anatomist who made the dissection, or the artist who made the model. The late Professor Ucelli, who was not only an able anatomist, but an expert artist, enriched this collection with many beautiful specimens in comparative anatomy, well worthy of a minute examination. The imitations of plants, fruits, &c. are not less elegantly executed, but this part of the collection loses its value, from the circumstance that the objects represented are indigenous in Italy! and we do not find any imitations of rare or tropical plants.

‘ I did not observe so great a number of blind people in any Italian city as in Florence. Every good begging station in this city is occupied by a blind beggar, and those stations descend by hereditary right, from one generation to another. How great the profits of these beggars must be, appears from the answer of a young man, when asked, how it happened that he could afford to marry,—“ *Thank God I have a blind father, therefore as long as he lives I can never want.* ” In general, these blind beggars are attended by stout young men, so that the proper order of things is reversed, for he who can neither see nor work, supports him who can do both!

‘ Here I cannot omit adverting to another custom prevalent not only in Florence, but in the other Italian cities, and which must necessarily exercise an injurious influence on the state of the medical profession. The apothecary’s shop is the physician’s rendezvous, for his messages are left, not at his own house, but at the shop of the apothecary whom he patronizes, or who patronizes him.

‘ The Italians do not understand the comfort of the expression “at home,” like us Germans, but spends all his leisure hours in the open air, in the street, and engaged in the “ *Dolce far niente.* ” The first thing the Italian practitioner does in the morning, is to hurry to his apothecary’s shop, for the purpose of learning what orders have been left for him. Meetings are held by physicians, and appointments made at the shop of the apothecary, and there the young physician, who is looking for practice, *must* loiter away his days; I say *must*, for if he does not do so, he will not succeed. Every stranger who is in

want of a physician, sends for one to the apothecary; and every one who has no family physician does the same. The *understanding* relative to their mutual interest, which arises from this singular connexion between these branches of the profession, must prove injurious to the patient, at least so far as it increases the probability of his being made to swallow medicine, more with the view of increasing the bill, than of restoring his health. This custom evidently degrades the physician, by making him a sort of creature of the apothecary, and likewise occasions a most serious loss of time, just at that period of life when his time is most valuable.'—*Edin. Med. and Surg. Journal.*

Non-mercurial Treatment of Syphilis.—In a late number of *Gräafe's and Walther's Journal*, we find an article by *Dr Otto* of Copenhagen on Syphilis, particularly the treatment of it without mercury, and the prevalence of this practice in England, in which Dr O. has drawn the following conclusions.

1. That the cure of syphilis, without mercury, has been asserted by so many authorities, that the fact can no longer be doubted. If, then, the disease could formerly be cured without mercury, it may certainly now be much easier, as it has lost much of its violence and obstinacy.
2. Syphilis can undoubtedly be radically cured in this manner; but then the cure is of longer duration, and the diet requires considerable restriction.
3. The secondary symptoms, and a return of the complaint are certainly more frequent; but the symptoms are not so difficult of removal, and the treatment has a much more speedy effect.
4. As the treatment without mercury requires a longer time, it appears more practicable in hospital than in private practice, and, on the other hand, the patient can be better watched in a hospital, which, on account of the diet, is of great importance.
5. As ulcers on the genitals are often not syphilitic, and the use of mercury is contraindicated from a predisposition to scrofula or phthisis existing in the individual, it is consolatory to learn, from the results of experience, that this medicine is not always necessary, and that a radical cure, by more simple and innocent means, can sometimes be effected. Where, however, the physician is anxious to avoid the possible evils which mercury is capable of producing, and also avoid loss of time, there remains a middle way, namely, to employ mercury—whose specific action can scarcely be denied—in moderate doses.—*Edin. Med. and Surg. Journal.*

REVIEW.

ART. IV.—*A Treatise on the Physical and Medical Treatment of Children.* By WILLIAM P. DEWEES, M.D. Member of the American Philosophical Society of Philadelphia, and of the Philadelphia Medical Society; Lecturer on Midwifery, &c. Philadelphia: H. C. Carey and I. Lea. pp. 496.

HUMAN life, it has been said, is longer than it used to be; fewer die, it has been added, in proportion to the whole number living than formerly; and finally, the mortality of infancy and childhood is greatly diminished. These views are quite interesting, and have been variously explained. Is it claiming too much for medicine to say, that its theories are better founded than formerly, and its practice more simple and efficacious? Men are generally better educated than they were. The limits of the art are better understood; the impracticable has ceased, in some measure, to be the object of ineffectual trial it once was; and the mind has been brought to bear on what seems at least possible. The great cultivators of morbid anatomy have shed a clear and useful light on this part of the profession, and in this way have contributed much to the early discernment of the real objects of our art.

Mortality has been diminished by the discoveries which have substituted safe diseases for dangerous ones, and by those which have changed the practice in others of a specific character. The substitutions in both these cases have been highly beneficial. Vaccination is named as an instance of the first; and the improved treatment of another specific disease of the last. Perhaps it might be truer to say of the latter, that the laws of the disease in its genuine forms are now better or more generally understood, and that the disease itself has come to be more readily and perfectly distinguished from its imitations.

Physical education has had its part in these improvements in the human condition. Its agency has been an important one. This education now begins earlier than it did; and it is not entirely lost sight of in the succeeding years. Some brief remarks will now be offered on the importance of this subject; and these may not be an improper introduction to a review of

a new work on the whole subject, and will explain our views respecting it.

We would remark, in the first place, that the physical education of the young should not give place to the intellectual. Is it not the tendency of the present system to cultivate the mind at the expense of the body? Is this not especially true of the education of females? It would almost seem, that, to the highly educated, the more strictly intellectual parts of the community, that health was of no great consequence; at least that it was less so than to those whose occupations are for the most part active, and requiring principally bodily vigour. Students, therefore, and the young who are in preparation for sedentary occupation, are not taught the value of physical exertion. It gradually becomes an accidental affair, and habit makes it to continue so in after life. 'Knowledge,' says a profound and noble writer,* 'is not our proper happiness.' It is the use of knowledge, which health only will perfectly allow of, along with the relations which the known has with the unknown, the power it furnishes of new and greater acquisitions, that gives to knowledge much of its value. Physical education, as it regards future health, has its highest value to the most gifted: and it is a melancholy ruin which the infirm and wasted body presents, when these are associated with a highly gifted mind. This education should begin early. Children should be amply provided with all the means of vigorous health. Their diet should never be a mere matter of accident; for, though they will eat and digest almost any thing, and though the stomach from its purely healthy state at that age, will, for the most part, reject what is bad from its quantity or quality, still its powers are enfeebled by these demands upon them, and at length a form of dyspepsia is produced, which it is not easy to overcome. Its effects are more particularly manifested by the predisposition which takes place to all the diseases of children, and in their worst forms. Thus they become flatulent, are troubled more or less with pains of various kinds, are costive, have worms, become pallid, are emaciated with swollen abdomen; and, with all this, the disposition is affected; the child becomes peevish and irritable, making constant demands for amusement in the day, and is restless and sleepless at night. Instances of all this are constantly presented us. We know of more than one family in which children are injured in this way. One in which a number of children of remarkably robust parents are all affected with the symptoms now stated, more or less severely, and in all of which they are to be traced to errors in

* Bishop Butler.

diet. Such children, it was said, are very susceptible of the diseases of their time of life. Autumnal diseases in particular should be named, for these always appear in this class in their most aggravated forms.

Exercise is another very important means of health during infancy and childhood. It should never depend on mere convenience. It is one of the most valuable means in physical education. The activity of infants and children is the genuine product as well as source of health. The play of a child is a sort of intellectual occupation. The mind at this age prompts to perpetual exercise and noisy motion. These are to it, what the sedentary, silent labour of reflection comes to be in maturer life. If the demand for motion in children can be estimated by the degree of it they will bear without fatigue, it is truly very great. A friend of ours undertook, upon a wager, to imitate exactly for a day the movements of a healthy child of between three and four years of age. He found himself very soon exhausted, while the ceaseless activity and gaiety of the child continued unabated till bed time. Let the child exercise in the open air. In a climate like that of America, the character of which is change in all the sensible qualities of heat and cold, dryness and moisture, children can only be secured against its injurious influences by being rationally exposed to them.

Is it not true, that, with but a small exception, the earliest years of infancy are the most healthful? At this age the child is not so heavy as to be a burden to its attendant, and hence no tolerably pleasant day passes without its being taken abroad into the air. It loses its exercise and exposure abroad, at that period of its existence in which it is too heavy to be carried, and too feeble in some, and with us long seasons of the year, to move with quickness enough to preserve a due circulation, and an equal diffusion of heat over its whole surface. A great change ordinarily takes place at this time in the diet of the child by weaning, and it is also subject to the irritation of dentition. Another particular in this connexion deserves to be mentioned, and that is the beneficial effects of the daily washing of the whole body which is generally practised upon young infants. As the child grows larger this excellent practice is, by many, given up. It becomes an inconvenience; and thus an admirable means of preserving health is only partially employed, and at length is resorted to at uncertain intervals, and rather for the purposes of cleanliness than of health. We have now spoken of diet, exercise, and free ablution, as among the principal means of preserving the health of infants and children, and of laying the surest foundations of strong vigorous

constitutions. What has now been begun well is to be faithfully continued, that its whole and lasting benefits may be insured to the individual. This is particularly important to those who are destined to sedentary pursuits. In this country, the truth of this is becoming daily more and more evident. In no part of the world have the literary classes suffered more, or have died so prematurely. This portion of the country has, perhaps, afforded the greatest number, and the most melancholy examples. This has been variously explained. Literary men, it has been said, are not sufficiently numerous here to form a distinct class, with habits of their own, and are obliged therefore to conform to the habits, the modes of living, of those who are actively employed. This explanation does not meet the whole case. It regards only one of the nearer causes of the facts under consideration, and though true, as far as it goes, it still leaves a vast deal unexplained.

What, then, are the causes which have rendered sedentary pursuits amongst us so unhealthful, or why is it that we find infirm health and such pursuits so frequently associated? These are to be found in the neglect of the body which has marked the career of the sedentary from very early life; in an indifference to the blessing of perfect health, so that so much remained as would allow of unremitting mental toil. Our students would hardly seem to think that robust health of the body belonged to a vigorous and constant use of the mind; as if decay of the one was in some way the natural result of the growth of the other. This doctrine is utterly unsounded. Every country but our own is daily furnishing instances of the vigorous and cheerful old age of the literary, and most highly gifted. It belongs to our whole constitution that it should be so. Our whole physical history teaches this. There is not an organ of the body, the vigorous and healthy state of which is necessarily impaired by the most perfect performance of its own proper functions, or of those of other organs. What is true of each, is true of all. It is equally true of the intellectual powers. These are functions, and these may all be in a state of most healthful activity, and still the health of the whole man continue perfect. In fine, all our powers both physical and intellectual may be in a vigorous and healthy state, and operation too, without weakening or impairing each other; nay, they are fellow-labourers in the great purpose of the general health of the individual, and their combined and proper uses have this common end. The qualification now made may be readily understood. By proper use of all our powers, is simply meant a proportionate cultivation and use of each.

The cultivation of the physical powers is physical education. It is this which has been neglected by us; and it is to the nature and utility of this, our attention will now for a moment be directed.

Physical education has regard principally to food and exercise. It is the last which is most frequently neglected. Exercise is not perfect in the ordinary forms in which it is used. Particular parts of the body are brought into operation by walking or riding. Exercise, to bestow all its advantages, must be so practised as to insure the regular and free use and motion of the whole muscular system. In other words, the body must be educated, if we would keep every part of it in the most healthy state. This education, in many parts of Europe, is a distinct branch of instruction; and it must be made so in this country, if we would derive the whole benefits of exercise. We are surprised at the feats of strength and agility which are exhibited now and then in public by the initiated; but the whole of this vast power and skill, which excites so much our wonder and admiration, has been taught, and may be acquired by every body. Any one may learn by his own experience, and from a small trial too, how soon, what seems impossible upon a first attempt, may be acquired and performed at pleasure. Let him take, for instance, the dumb bells into his hands, and endeavour to carry them slowly from the sides of the body and support them at arms' length in a horizontal line, or at right angles with the body. He will probably fail again and again in doing what seems so easy; at length, however, it will be done with perfect ease, and he will keep them in their position without fatigue. So the whole body may be educated, and all the limbs be brought to practice every variety of easy and graceful motion. An interest is taken in exercise when thus practised, which is rarely acquired in its other forms. But what is of most importance, gymnastic exercises, from their great variety, give tone and vigour to all parts of the body. Walking strengthens certain muscles, but it leaves the mass unemployed. A certain degree of tone is acquired in parts, but very little is added by continuing this single mode of exercise. Men walk to keep what they have got, rather than to gain a new or a more useful stock. Gymnastics, in their variety, give in succession tone every where; and by their continuance new vigour is gained, because a strong emulation is at work among numbers, not only to exceed others, but one's self. It would be a gain to pass from walking the streets, to running through them; but as there is no obvious motive for such an exhibition, it will not often be made. The gymnasium sanc-

tions the widest exertions of muscular power, and it is there they are always cheerfully made.

There is a pretty common mistake concerning exercise, as it is ordinarily practised. Thus, individuals are very apt to walk till they are exhausted, from a notion that the benefit is in proportion to the exhaustion. One effect of this is to diminish zeal in the pursuit; and it is apt to be regarded as a great inconvenience, rather than a positive pleasure, which it should be to be very beneficial. Another effect is, the mind is exhausted along with the body, or a state unfriendly to useful mental exertion is produced. Now this may be regarded an advantage for the student, as he is habitually tempted to use his mind too much. But it is not an advantage if exercise is made burdensome, for then it will not be willingly practised. It must be a pleasure, a recreation after toil, if we would have it faithfully followed up. Walking is less useful than gymnastic exercises in another view. The mind is less relieved by it. Thinking is pursued as freely and as deeply as in the study, and the student comes home from his walk with his mind and body exhausted. There can be but little deep thinking carried on in the variety and noise of the gymnasium. The principal use of the mind there is to make the best uses of the physical powers in all their variety and extent. The mind is driven from its ordinary tracks, and comes back to them strengthened by the very tone it has contributed to impart to the body. We would not be understood to undervalue walking as one means of health. We have compared it with others, and cannot but regard these as possessing advantages over it. Until, however, gymnastic exercises are regularly taught, and a love of them excited, walking and horseback exercise must be made to supply the deficiency. They, probably, will continue to do this for those who are already occupied by sedentary professional labours. For these they may, and will, do much if faithfully practised. But should opportunities occur, we would strongly recommend even to these individuals the labours and amusements of the gymnasium. There is an advantage in these exercises which has not been named. They may be pursued effectually in one's own house. The means, or instruments employed, are few and simple, or many of them are so. The student should provide himself with these; and he is only to be faithful to himself in regard to the use of the means of health, to secure all its blessings. Other modes of exercise are necessarily interrupted. The weather, in a climate like ours, is unfavourable to their regular employment. An effort, indeed, may keep a man abroad in wet weather, but it is better

to have our good habits as little under the control of effort as possible.

There is an advantage in walking and riding which has been suggested to us, which deserves to be mentioned. It is acknowledged to be an important one. In riding or walking, the individual is necessarily in the open air. We use the latter term after its English acceptation, which confines it to horse-back exercise. This free use of the air, and this exposure to varieties of temperature, have many obvious advantages. The student is taken for a time from the confined atmosphere of his study, which is rarely a pure one, and is brought at once into the purest his situation affords. The fresh wind, while it is constantly giving him a pure air, is also by its resistance to his motion, increasing his bodily efforts, or exercise. By its variety in heat and cold, moisture and dryness, he is made accustomed to such changes, and of course less affected by them. All these advantages, however, may be found in the gymnasium, if properly constructed. It should be simply an enclosure, though, in many situations, even this would be unnecessary. But it should not be covered. Its extent should make this impossible, or only a small part should be protected from the weather. Such an arrangement furnishes all the advantages which have been claimed for exercise on foot or horse-back. These last may, and should, enter into a system of gymnastics, but it is perceived they have no peculiar advantages which should make them supersede them.

We think this a highly interesting subject. Gymnastics should be recommended to all our colleges and schools, as an essential department of study and instruction. Able teachers of this science, for it is one, should be employed. Let our young men find their principal amusements in the gymnasium, and they will not look for them in more questionable places. Let these exercises be made truly an amusement, and they will have a moral as well as a physical influence. Let them especially be made interesting to those who are designed for sedentary and literary occupations, and our scholars, we may hope, will be more healthful and longer-lived. This subject claims more attention from physicians than it has heretofore received amongst us; and it is with the hope of exciting such attention, that we have given these few remarks a place at this time.*

* Since the above was written, we have learnt with great pleasure, that instructions in gymnastics are now given in our University, by an experienced instructor; and we were highly gratified to learn, that some of our most useful and distinguished citizens, have a very extensive plan in forwardness for the same purpose, in this city..

Dr Dewees' work treats on a very useful part of our subject—the physical as well as the medical management of children. It is strictly a book of minute details, as it regards all the points discussed, and its methods of prevention and treatment are fully illustrated by facts. It is intended for a popular work, and the style corresponds to this purpose. It has been questioned whether such works are really useful, and how far they should be recommended by the profession. The question has, in a manner, been answered for us. There is a spirit of inquiry abroad which directs itself to every subject. Men are getting more and more anxious to be informed on all the great subjects of human inquiry. Medicine is one of these; and very intelligent men out of the profession, want to know something of their own frame, its structure, and the laws which govern it in sickness as well as in health. The practice of medicine is getting more simple, and they learn something of its principles, and even something of its methods. If this be the case, and books will be read, they will gradually acquire more and more of a popular character, and such as relate to physical education will probably at length become entirely so. At present, however, they are imperfect. It is a very difficult task for a professional man to write about his profession after such a manner that his books shall be perfectly understood. A difficulty is in the language. Let the work be as free as possible from all technicality, still there will be a meaning in common terms which is professional, and which the public will not be able to comprehend. It is this fact which makes these works in a measure useless; nay, it not unfrequently makes them injurious. The rule of practice is followed where the case is misunderstood, and important time may be lost, or a very bad treatment adopted. Dr Dewees has written, it would seem, alike for the profession and for the public. His book has two principal divisions. The first embraces the physical, the second the medical treatment of children. The first is the more popular. It might have been better to have made two separate works; the first wholly popular, the second for physicians. Both parts would equally interest the latter class of readers, while the former would have learnt all that it is well for them to know from the popular part. A work has quite recently appeared in England on the same subject with that of Dr Dewees, and has been very favourably received by the profession. It is by a Dr Kennedy.

It would be no easy task to give a full analysis of Dr Dewees' work; and we are not sure that the labour would be usefully bestowed, even if it were attempted. Instead of an analysis, therefore, we shall proceed to offer our readers some

extracts, which will, we think, enable them to judge of it. Our first extract is from pages 91, 92, 93. It contains several judicious remarks on the attempts that are not unfrequently made by wet nurses to increase the milk.

‘ Serious mischief is oftentimes done by the mother attempting to remedy every temporary diminution of milk, by increasing the quantity of her food, or by imagining that some stimulating drink will answer this valuable end. Hence, indigestion, fever, and sometimes a habit is generated of too freely indulging in ardent spirit. This practice has for its excuse, that the milk fails because the woman is weak, owing to her not taking a sufficiency of nourishment; hence, too much feeding is indulged in, to remedy this supposed weakness—a task is now imposed upon the stomach it cannot perform, however healthy it may be, and indigestion must of course sooner or later be the consequence. Or owing to some trifling disturbance in the system, of a temporary kind, the secretion of milk may be for the moment suspended, or diminished; an attempt is made to recall it by an increase of food, by which, a slight inconvenience is converted into a permanent derangement of the system; or a fever of even a dangerous character, may be generated. Or owing to a false theory, or imperfect observation, it has been supposed, that certain liquors have a control over the secretion of milk; and hence, the too free use of certain combinations, in which ardent, or fermented spirits, too largely enter; thus porter, ale, milk punch, &c., become the ordinary beverage of nurses, to the but too often destruction of their morals.

‘ We must not however be supposed to deny the influence of certain solid, as well as fluid substances, upon the secretion of milk; this would be turning our eyes from reason, as well as experience—for we well know, that unless the body be properly supported, there must soon be a diminution of milk. We only mean to insist, that it is the nutritious, and not the stimulating part of diet, that is subservient to the plentiful, and healthful formation of this fluid. In proof of this, we need only observe that we have often been consulted upon the subject of the failure of milk, where an anxious mother herself, or a hireling nurse was concerned, and been informed by them, that they had tried every thing with a hope of improving it; such as rich victuals, porter, ale, beer, milk punch, &c., without success, or it was followed perhaps by a diminution of it.

‘ In such cases, we have often succeeded, in producing a plentiful supply of milk, by adopting the opposite plan of treatment; for it must be borne in mind as an important truth, that this failure proceeds more frequently from an over, than from an under quantity, of food, or of drink. It is a fact well known, to all who have paid attention to the consequences of arterial excitement, that when it amounts to even moderate fever, the milk almost immediately diminishes in quantity; and also, when this action is diminish-

ed (provided it had not continued too long) by suitable remedies, that the secretion of milk again becomes more abundant.

‘Upon this principle, we have frequently prescribed evacuants, and abstinence, to promote the secretion of milk. With a view to illustrate this situation of the breasts, under an increased excitement of the system; and the advantage, nay the absolute necessity of reducing the force of the blood vessels, for the purpose of restoring their secretory functions, we will relate one, of several cases in which this plan was pursued.

‘This case among many others, shows us, that the scheme the wealthy, and plentiful families adopt with their wet nurses, is wrong from beginning to end. As little change should be made in the diet of the nurse, as is strictly consistent with sufficient nourishment; and none perhaps in her habits of employment—that is, she should not exchange, active, for passive habits. If she has been accustomed to work, give her by all means uniform employment. If she has been much exposed to the air and weather, let her and the child have the advantage of air and exercise, upon all proper occasions: the extremes of heat and cold should of course be avoided, as well as a wet atmosphere.

‘This case also well illustrates the position we have endeavoured to sustain, namely, that a stimulating diet is not always the best method to procure an increase of milk. But at the same time, we are far from declaring, that a more generous diet may not be occasionally necessary—but such cases are by no means so common, as is generally imagined, and still more rarely, is a stimulating one proper.’ pp. 91—93.

From Chapter II.—‘Of the Air,’ we take the following:

‘A more serious objection may be made to the habit many women have, of keeping the child at their bosom all night, with its head closely covered with the bed clothes; the objections just made, will operate with equal force in this instance, as in the one this moment considered, with this addition—there is constantly emanating from the surface of every living body, a sensible, and an insensible perspiration, as well as an extrication of carbonic acid gas. If the body be covered closely, and the escape of this gas prevented, the air surrounding the body thus covered, is found unfit for the purposes of respiration. Therefore, the child is oftentimes plunged into an atmosphere already rendered impure by the body of the mother or nurse, and consequently, in a short time, has less oxygen than is necessary for the purposes of respiration; and it perishes at its mother’s very bosom. We have witnessed four instances of death from this cause.*

‘It will be easily deduced, that every deterioration of the air,

* We cannot better illustrate the injurious consequences arising from this practice, than by stating, that in Great Britain alone, there perished forty thousand children, by the practice of nurses permitting the children to sleep near them, from the year 1686 to 1800. *Friedlander’s Education Physique.*

must be injurious to the child, precisely in the proportion to that deterioration; consequently, the utmost care is required, that no unnecessary process by which the air can be injured, should be carried on in the room or nursery, in which the child is kept. Hence, the decided impropriety of too crowded a room; of washing, drying, and ironing the things intended for the child or children's use; permitting the wet or soiled articles taken from the child to remain long in the room; burning of charcoal, or other combustible substances outside the chimney place; cooking of the various articles for meals; the too frequent wetting of the floor; smoking of tobacco; burning of oil, with too long a wick, &c. In a word, the nursery should be the purest place, if possible, in the house. We have had occasion already to advert to this subject, when treating on the nursery. (350, &c.)

'We cannot well condemn too severely, the filthy practice in too many nurseries, of drying the wet and soiled articles in the room with the child. If an article must be used a second time after having been once wetted, it should at least be removed from the nursery for the purpose of drying. But a much better practice would be, to consider a well wetted diaper as unfit for re-application, until it had been washed. The same may be said of every other article belonging to the child, that has been wetted by its discharges; as its petticoats, sheets, bed, mattress, &c.

'The value of a pure atmosphere, does not cease at any period of the child's life; it is highly important at all times; though perhaps not so immediately essential, as during the first few days of its existence, as it is then less able to bear an impure air, than when it becomes older. If the directions we have just given be attended to, many sources of impurity will be removed, yet it will not amount to absolute security. Therefore, frequent ventilation is of much consequence; by this, the great mass of the air is removed, and its place supplied by that of a better quality. In doing this, however, some care is necessary, or the child may receive injury, by either partial streams of air passing over it, or by having applied to it one of too low a temperature.' pp. 127, 128.

The following from the chapter on 'artificial nursing,' is a fair specimen of the great minuteness of detail which characterizes this work, and which has before been alluded to.

'We consider the use of the sucking bottle, as a great improvement in the rearing of children. Unquestionably, it is one, that is attended with the most entire success in very many instances; though we at the same time admit it to be attended with considerable trouble, where it is administered in the best manner; and must always be regarded, but as a substitute for the breast. But where the choice lies between it, and a hireling nurse, we should without hesitation give it the preference, unless our choice could be very securely made in regard to the latter; or there are existing some particular circumstances, which render the bottle improper.

‘ There are cases however, in which we should very much prefer the breast; and this even at the hazard which must always attach, in making choice of a person to fulfil the important duty of suckling. These cases are—1st, for a very young, and feeble child, and where this weakness arises from its immaturity; from a natural delicacy of constitution; or from the previous illness of the mother; 2d, where the mother has a tainted constitution; and which taint, has been in other instances, or may again be perpetuated to her offspring; 3d, where the mother’s milk has decidedly so far disagreed with the child, as to produce either bowel complaints, or great wasting; 4th, where the child is recovering from illness, especially from complaints of the stomach, and bowels; 5th, and especially, where the experiment of the bottle has been fairly tried, and it has not been found to answer.

‘ When the bottle is used, much care is required to preserve it sweet, and free from all attachments to its sides, of the remains of the former food, by which the present, may be rendered impure, or sour; for this purpose, the following cautions must be observed:*

‘ 1st. Never put a second supply of milk, or food, upon the remains of a former, unless a very short interval has elapsed, and they are of the same making.

‘ 2d. So soon as the child has taken as much as it choose, or as may be judged proper for it, let the bottle be emptied, if any food remain, and immediately cleansed by *hot water*.

‘ 3d. When well cleansed by the hot water, let it be thrown into, and kept in a basin of cold water, in which there is a little soda dissolved.

‘ 4th. Before using it, let it be well rinsed with clean cold water.

‘ 5th. Let the extremity from which the child is to suck, be covered with a heifer’s teat, in preference to any thing else; and with a view to its preservation, the following rules must be observed.

‘ 1st. Let this teat be one, that has been preserved in the best possible manner, by those who understand this art.

‘ 2d. Let not the teat be of too large a size; nor one, that will permit too rapid a flow of the food, especially for a very young child. If it be found to pass too freely, let the piece of sponge which is, or always should be, at its extremity, be either enlarged, or more strongly compressed.

‘ 3d. Immediately after the bottle has been used, remove the teat from its mouth; and let it, and the sponge, be well washed, and kept until again wanted, in a little whiskey and water. When

* It is not the bottle alone, which requires a strict attention to cleanliness; it is every utensil that is employed, either in the preparing, or receiving the nourishment of the child—for they may become either sour or impure, by some of the victuals adhering to them; or they may be chemically acted upon; as vessels made of copper, or glazed earthenware.

re-applied, let it be attached by a piece of clean thread, as the former piece will be sour.

‘ From what we have said, it will appear, that we prefer the the flat oblong bottle, with a teat, to the bottle and tube—and we do this for the following reasons.

‘ 1st. The extremity of the tube is never so well received by the child, as the teat; nor is it so comfortable to its mouth.

‘ 2d. The tube frequently becomes obstructed by the curd of the milk; and it is oftentimes difficult to remove it; and if not removed, its objects will be defeated.

‘ 3d. It is much less convenient; requiring much more address in the management of it, than the bottle.

‘ 4th. It is much more difficult to keep clean, or sweet; consequently, must be improper in proportion to that difficulty.

‘ The food for the child in this artificial nursing, is the same as we have already recommended,* when only partially nursed by the bottle; namely, the cow’s milk, water, and sugar. It should be frequently renewed, for the reasons we have already given; and it should never be made too tenacious, by the addition of any other substance than those already recommended, as it will not pass through the pores of the teat, or through the tube, with sufficient facility..

‘ Children who are brought up by artificial means in this country, have subsisted almost altogether upon cow’s milk, reduced as directed before. The European writers speak highly of the milk of other animals; but of the qualities of these, we have had no opportunities to judge. Thus the milk of the goat, the mare, the ass, &c. have been much praised for their nutritious, and other qualities, by different writers.

‘ Dr Clarke,† of London, declares “ the milk of the ass, to be the best substitute for that of the mother. Cow’s milk is too rich, containing too much oil and cheesy matter.” We will however give the results, which the analyses of the milk of several animals have afforded, agreeably to MM. Parmentier, Deyeux, and Vauquelin.

‘ One hundred pounds of milk gave of

	Cream	Butter	Cheese	Sugar
The Cow	4 $\frac{1}{6}$	2 $\frac{1}{6}$	8 $\frac{1}{8}$	3 $\frac{5}{6}$
Woman	8 $\frac{1}{6}$	3	2 $\frac{1}{6}$	7 $\frac{3}{6}$
Goat	7 $\frac{1}{6}$	4 $\frac{9}{6}$	9 $\frac{5}{6}$	4 $\frac{3}{5}$
Ass	2 $\frac{1}{6}$.	3 $\frac{1}{6}$	4 $\frac{9}{6}$
Sheep	11 $\frac{9}{6}$	5 $\frac{1}{6}$	15 $\frac{3}{6}$	4 $\frac{3}{6}$
Mare	1 $\frac{3}{6}$		1 $\frac{5}{8}$	9 $\frac{9}{6}$

* This object is readily attained by a mixture of cow’s milk, water, and loaf sugar, in the following proportions:—milk two-thirds, water one-third, and a small quantity of loaf sugar.

† *Commentaries* p. 56.

‘ From this statement it would appear, that the milk of the ass and the mare, approach nearer to that of the human, than any other yet analyzed. The milk of the mare is remarkable for its containing so little cream, and so large a proportion of sugar.’ pp. 162—165.

Under weaning we have the following, with much more which we regret our limits will not allow us to extract :

‘ When the child has arrived at the eleventh or twelfth month of its age, it is generally thought to be sufficiently advanced, to take it from the breast. But it will immediately strike any one of reflection, that the rule formed upon the age of the child, must be liable to many important exceptions. We shall therefore consider this subject, under two distinct heads; and these, subject to the variations, which the season of the year shall impose upon them. We shall therefore regard, 1st, the state of the teeth; and 2d, the state of the health of the child.

‘ It is evident, nature intended that the cutting of the teeth should have some meaning, as well as use; and in our minds, that meaning cannot well be mistaken, though she assumes much variety in the period at which this may happen. That the period of cutting the teeth is uncertain, is familiar to the observation of every body; yet, at whatever time this may take place, the circumstance marks the condition of the stomach, or of the digestive powers, in most cases, with much certainty. Thus, if a child cut teeth at four months, it is more than probable, that its digestive powers would be as great, as in a child that might not protrude them, until eight, or even a more advanced period; therefore, if it be proper from the circumstance of teeth appearing, to alter the nature of the food of the child, it must be so at the early, as certainly as at the later period. That nature intended these little instruments should be employed so soon as they make their appearance, is rendered more than probable, by their coming almost always through the lower jaw first. In this situation, they can be called into immediate requisition if necessary, which is not the case, when they appear first in the upper jaw.

‘ It would seem then, that a child is capable of preparing its more solid food, in proportion to the number of teeth it may have cut; and that, precisely at the period, at which they may make their appearance. Therefore, the number of the teeth more certainly points out the powers of the stomach, than the period of the child’s life at which they may show themselves. In confirmation of this last remark, we may observe, that we have almost constantly noticed, that children who were late in cutting their teeth, neither seemed to crave solid food more, nor digest it better, than those who were much younger, but supplied with an equal number of teeth. And again, we may remark, that the force of constitution is very well declared, by the periods at which the teeth may be made to protrude the gums.

‘From these observations it will be evident, that the rule founded exclusively upon the age of the child, must be of very doubtful application, if not injurious in its observance; since it might sever a child from the breast, at a time when its stomach was ill qualified to provide for the contingencies of the system. We should therefore say, that the presence of teeth, is absolutely necessary to the success of weaning, let the age of the child be what it may; and consequently, that this should never be undertaken until several are cut.’ pp. 187, 188.

‘It is a fact so well known, that it scarcely requires mention, that the period of the year will much influence a decision, on the question of weaning. The season of the year may render this act convenient, inconvenient, or improper. 1st. The convenient season of the year, will be all that period, when its temperature is moderate; as the months of March, April, May, June, October, or even early in November; when the nights are neither excessive in length, nor the atmosphere severe in temperature. 2d. It may be inconvenient from both these last named causes; as the months of December, January, and February. 3d. It may be improper, in case of diseases arising from, or incident to a certain part of the year, being always aggravated in newly weaned children; as in the months of July, August, and September. Therefore, weaning should be in part regulated by these considerations.

‘1st. Accustom the child, from time to time, to take other food than its mother’s milk, by feeding it on bread and butter, bread and milk, rice and milk, &c., or occasionally on beef, mutton, chicken, or oyster tea; or by giving small quantities of either of these substances, in a solid form, as has already been directed.

‘2d. Let the mother give the breast at longer intervals, and gradually prevent its being the principal support of the child.

‘3d. Let the child, after a little longer time, receive the breast as seldom as possible.

‘4th. Endeavour to excite an aversion to the breast, and thus induce the child to withdraw itself from it, rather than permit it to feel the want of the breast as a privation.

‘5th. This aversion may be excited in one of two ways—either by touching the nipples with some bitter or disgusting substance, as aloes, garlic, assafœtida, &c., or covering them with a forbidding one, as black wool, ink, court plaster, &c.

‘6th. When you commence this severe process, be firm; and let no importunity of the little pleader, overcome your resolution, or your work will never be finished.

‘A great error is generally committed immediately after weaning, by giving the child not only too much food, but that of too gross and too solid a quality. This injurious practice has arisen from the supposition, that the child not only requires it, but that it is certainly capable of digesting it. This plan of treating children at this time, is replete with mischief; and this mischief is com-

mensurate with the tenderness of the child's age, and the solidity and grossness of the food exhibited. It injures the tone of the stomach, by overloading it; and its digestive powers are destroyed, by the severity of the duty imposed upon them: in consequence of this, the child falls away, and becomes weak in proportion as the plan is insisted on. If there be any latent tendencies to scrofula, rickets, or consumption, they are now called into actual disease; and the child falls a victim to the overweening desire of the mother, or its friends, to promote its welfare.

'Where milk will agree, there is no food so proper after the child is taken from the breast. It may be employed in any of its combinations, with good wheaten bread, rice, sago, &c., only remembering, when either of these articles is found to agree, it should be continued perseveringly, until it may become offensive; in this case, some other combination may be required. Or, should the child be pretty well supplied with teeth, it may be occasionally aided by small quantities of either of the animal juices already mentioned; but subject to the restrictions, then suggested.' pp. 190—192.

Of the food proper for children after the first dentition.

'The drink of children should be pure water; or occasionally, milk and water. There can be no possible propriety in giving them liquors of any sort whatever; for unless as a remedy in disease, the system never requires them; and when indulged in without this necessity, are sure to do mischief. But children should not be permitted to acquire a habit of drinking very often; for it will certainly be mischievous, by over-distending the stomach, too much diluting the gastric juices, and impairing the appetite. During their meals, a moderate quantity should be given them, as it will then be useful, by forming a more complete pulp of the food taken in, and thus subserve the purposes of digestion. The water given to children should not be of too low a temperature, lest it give pain, and do injury to the powers of the stomach. We think we have seen serious injury result from the too free use of iced water.'

'1. Of the kinds of animal food. It must not be assumed with too much facility, that even a moderate quantity of any kind of animal food is equally proper. It is no longer a matter of conjecture, but one of very often repeated experiment, that there is much difference in the degree of solubility, if we may so term it, of animal foods; and that, which from long observation has proved to be the most easy of digestion, should be the one generally preferred. On this account, beef, mutton, lamb, venison, fowls, turkeys, pheasants, partridges, &c. are to be preferred to veal, pork, pig, geese, and ducks; since it has been proved by almost universal experience, that the stomach assimilates the former more easily. We are aware, that this is not universally the case; but the exceptions only prove the rule. Therefore, when a child is at the age

proper for indulgence in a portion of animal food, one of the first class enumerated should be employed.

‘3. The period of the day. It is very far from being a matter of indifference, at what period of the day, the child receives animal food—so much so, that the same article may be either proper or injurious, as it may be given at one time or another. Therefore as a general rule, a rule indeed admitting of but few exceptions, animal food should be taken only in the morning, or at noon; and as another general rule, we should much prefer the latter, for the following reasons—1st. The child in the morning, from the previous night’s rest, has its system rendered very excitable at that time; therefore it should be confined to bread and milk, weak tea or coffee,* and bread and butter, mush, boiled rice, or any other mild food. 2d. From the appetite at this time being rendered very keen, there is a risk that it will take too much, if animal food be added. At noon, the excitability of the system is a little worn down by exercise, &c.; and at this time, the stimulus of a moderate quantity of animal matter, may not only safely, but profitably be indulged in. In the evening we would forbid it; as digestion will not be completed before the child goes to bed, and it may have its sleep much disturbed in consequence; or it may sleep too soundly, from the stomach being oppressed by an over quantity of food; or by the blood vessels becoming too much filled.

‘4. The quantity employed. Children should never make animal substances a principal part of their food, until after the age of puberty. Before this period, there should be a predominance of either vegetables, or milk. The vegetables however should be properly selected; and but one kind should be used at a time, as mixtures of them are always less manageable by the stomach, than when they are presented singly. The best vegetables are, rice, potato, spinach, asparagus, turnip, and squash—the less proper are, beans of every kind; cabbage, beets cooked with vinegar, peas, sorrel, and cucumbers. Animal substances must be used but in moderate quantities, especially with children who are going to school; for if it become the principal part of the diet of such children, they are sure to be over stimulated; become sluggish and drowsy, and thus incapacitated for study. Those children who have made milk the principal part of their diet, are always found to be the best students. The fatigue of study is much diminished by employing a mild, nutritious diet; since by this regimen, the faculties become more acute, and the memory strengthened.’ pp. 207—210.

We particularly recommend to our readers the chapter on

* We mention weak tea or coffee from necessity, and not choice. In our large cities, it is not always easy to command the more suitable article, milk. But any injurious qualities appertaining to either tea or coffee, may easily be counteracted; or rather, they may be so diluted, by the liberal addition of milk or water, as not to be injurious.

exercise ; bathing, and *cleanliness* ; and *dress*. It would have gratified us much to have extracted these entire.

The remaining half of the volume on diseases of children will be the subject of future analysis.

ART. V.—AN EPITOME OF CHYMICAL PHILOSOPHY, *being an Extended Syllabus of the Lectures on that subject, delivered at Dartmouth College, and intended as a Text Book for Students.* By JAMES FREEMAN DANA. ‘*Sparsas Colligere frondes.*’ Concord, N.H. Isaac Hill, 1825. pp. 231. 8vo.

PERSONS who cultivate a general acquaintance with any science, without devoting themselves to it so much as to preserve their knowledge at all times fresh and accurate, frequently feel as a great want the not having some compendious work, giving completely, but succinctly, the leading principles and facts of that science, in such a form as to admit of a direct and easy reference, for the purpose of ascertaining any point that may engage their attention. The want of such a work is also much felt by students engaged in attending the instructions of a teacher given by lectures. The full advantage of these cannot be realized without something to serve as a help to the memory, by presenting to it an outline of the subjects, around which it may arrange in their proper places the expositions, references, and illustrations connected therewith.

For students merely, a syllabus of the lectures answers an excellent purpose, but is too meagre and unconnected as generally made, for any other use, and the design of the present work seems to be by extending the syllabus, and making it embrace a complete, but concise account of the principles, and all the important facts of the science, not only to present students with a useful manual for reference while attending lectures, but to form a work that shall be useful to general cultivators of the science, as well for the same purpose of reference as for acquiring a good knowledge, in the first place, of the subject itself as it now is. From the situation of the author as a public teacher of chymistry in a highly respectable institution, and his reputation for intimate acquaintance with the subject, it may readily be believed, that he is well fitted for the undertaking.

In no one popular branch of science is such a work more necessary or useful than in chymistry, consisting as this science does of a vast multitude of facts, minute and complicated in their details, and though subservient to a few general rules, so

loosely connected with one another, and so varying in the results produced by the operation of those rules, that it is impossible for the minds even of those whose lives are devoted to the science, to retain within their grasp and ready for use, all the details that it embraces, and that the pursuit of it requires. The larger and best works on the subject, contain a great deal that is useful only to the professed practical and operative chemist, and as much more that is only matter of history, and which, however amusing and instructive it may be to those who love to trace the progress of knowledge, would be considered by those in search of positive and useful information as little better than so much lumber. To give the principal facts and doctrines of chymistry independent of these is the professed object of the work before us.

The first fifty pages of the book are devoted to the general theory of the science, comprehending the general forces producing chymical phenomena, and the laws of their action. These are exhibited in a very simple and condensed form, sufficiently full, however, to give a careful and considering reader a good and accurate knowledge of the subject. The author seems familiar with all the latest and best authorities, and has sedulously availed himself of all information, having a well-founded claim to regard, which they could give.

In electricity, and its influence on the chymical relation and action of different bodies, many new discoveries have recently been made, and new instruments have been invented for its application, by the agency of which brilliant and unexpected results have been obtained. All of these have not yet been fully investigated and brought to systematic arrangement, and probably will not be for some time to come. Thus far, however, the work before us contains more on this subject than any treatise on chymistry that we have seen. The author seems fond of this part of his profession, and this fondness has, in one respect we think, carried him too far. Electricity has a powerful effect in various ways, in giving magnetic properties to the various metals while under its influence, and communicating the same permanently to steel. This of course would form an interesting part of a treatise on Electricity, but we do not see the propriety of making it a distinct division, in a publication of this kind, under the title of Electro-Magnetism, and classing it among the general forces influencing chymical action; for with this we believe it has little to do, though magnetism itself deserves a mention in some appropriate place as constituting an important property in certain bodies.

We also noticed another thing as incorrect, though, perhaps,

not known to the author to be so at the time of writing that portion of the work in which it is mentioned. In speaking of the important applications of the Electro-Chymical Theory to the arts, he mentions as an instance the preservation of the copper on the bottom of ships. Now, though it is a fact that copper may be preserved, in the manner alluded to, from the corrosive action of salt water, yet the importance of the discovery is now doubted, as it has been found that these very vessels, after a long voyage, have their bottoms extremely foul with barnacles, sea-grass, &c. whereby a great part of the very object in coppering them is defeated. From this cause the invention is already falling into disrepute, and will doubtless be abandoned, unless it can be so modified as to remedy this difficulty, as well as some others, attendant on it. Of this, however, we are doubtful, as it seems not altogether unlikely, that the very action of the water upon the copper is the means of preventing the adhesion and growth of these marine annoyances.

After the general theory follows a short, but accurate account, of the principles of chymical nomenclature, comprehending a classification of the known simple substances. In this, with regard to the simple non-metallic bodies, he has dropped the division heretofore sometimes adopted of *combustible substances* and *supporters of combustion*, on the ground that this division was adopted on a partial view of the doctrine of combustion. In this conclusion we agree with him, as it appears to us much more philosophical to refer the phenomena considered characteristic of combustion wholly to the energetic exercise of general properties; and we, besides, avoid the use of very indefinite terms and the perplexity of some striking anomalies in the arrangement under them. Three of those substances formerly considered as supporters of combustion, are associated in one group, with the distinguishing property of being almost uniformly electro-negative; the fourth is put by itself, as not being yet sufficiently investigated to have an exact place assigned it.

The remainder of the first part of the work is devoted to an account of the nature and properties of the simple bodies and their most important or interesting compounds, and the doctrine of combustion. The first article is water, a substance usually included in the account given of the compounds of one of its elements; for this priority of place, reasons are assigned in the preface, yet we cannot but think the innovation as much a matter of fancy as of utility, though we should make no objection to it.

In stating the specific numbers of the different compounds

according to the theory of definite proportions, we observe that the relative numbers for hydrogene and oxygene that are used, are those given by Dr Proust. Although the exact accuracy of these has been questioned, they are much preferable for this purpose to those in which the relative weight of oxygene is expressed by a fractional number, and also to those used by Davy, which, not referring to a uniform scale, are often a source of no little puzzling to the student.

The division of the metals into three different classes according to the results of their union with oxygene, as being oxyds only, or acids or alkalies, is, we think, a very good one, and much better than some others that we have seen.

The second part of the work contains the chemistry of organic substances, and, though short, affords a notice of all likely to be generally interesting or useful.

The language of the work is clear and simple, and a great deal of information is comprised within a small space, derived too from the most recent and best authorities, both foreign and native; and though professing to be merely a compilation has, we doubt not, received much advantage from the author's own researches. The mechanical execution of the work is by far the worst part of it, and though, by no means, such as to constitute any serious objection to it, we should have liked much better with fewer of the printer's mistakes. We cannot either altogether reconcile ourselves to the use of *chymistry* and *chymical*, instead of the more common and modern way of spelling; it looks to us rather quaint and affected, though we may possibly be too whimsical about the matter.

On the whole, our opinion of the book is favourable. We think it a useful addition to the elementary works on this science, and one that will be found very serviceable to the class of persons for whom it is intended.

ART. VI.—*The Lectures of Sir Astley Cooper, Bart. F. R. S. Surgeon to the King, &c. &c. on the Principles and Practice of Surgery; with Additional Notes and Cases.* By FREDERICK TYRRELL, Esq. Surgeon to St. Thomas's Hospital, and to the London Ophthalmic Infirmary. 2 Vols. Boston: Wells & Lilly, pp. 263, & 343.

WE were never truly sensible, before the publication of these volumes, how entirely Sir Astley Cooper was deserving of the high rank which he has so long maintained in his profession. We have always indeed heard of him as one

of the first anatomists and most skilful operators of our day; but the brilliancy of his reputation in these respects has prevented those who know him only at a distance, from his works or through report, from holding in just estimation that which is truly his most decisive claim to the eminence on which he is placed. Whatever may be his desert as an operator; allow him to be, as he perhaps is, the best living, and we do not hesitate to say, after the perusal of these volumes, that it is his smallest claim to high reputation as a practitioner. Not that we discover in them marks of a very bold or inventive genius, or of very remarkable strength or profundity of thought. The chief characteristic of his mind seems to be the possession of that good, plain, thorough common sense, which perceives every thing in its most useful and practical point of view; which discerns every thing of importance, and discerns it precisely as it is; which is not misled by appearances, and can attribute results to their true sources. This is the quality of mind which, above all, fits a man to be a good practitioner of medicine or surgery. Science of all kinds, particularly professional science, is no doubt of immense importance; still without this quality in some measure, it is but as sounding brass. It is science united with this clear-sighted practical sagacity, which makes a great physician or a great surgeon.

We should think that these lectures would be nearly or quite as valuable, particularly the first volume, to the physician, as the surgeon. Sir Astley is a practitioner who never confines himself to the surface, but keeps the system and the constitution always in view. His practice is based upon certain broad, fundamental principles of pathology, which are just as applicable to the investigation of internal as of external diseases; and there is this peculiar advantage in having such principles illustrated by a surgeon, that he does it by sensible objects, by diseases whose processes he has under his eye, under his very finger. It is not necessary to say much to show the immense advantage which he has, who can investigate and illustrate, by sensible objects, principles in themselves obscure and somewhat conjectural, over him who must study and illustrate them by things unseen, and processes of disease in their nature as obscure as the principles themselves. The principles upon which diseases proceed and upon which they are to be treated, are the same, whether they are surgical or medical. And the general principles both of pathology and the-rapeutics which the surgeon derives from the investigation of disease, are just as available to the physician as the surgeon, with that allowance which every sensible man will himself

make for the difference in the nature and objects of the organs attacked in these two classes of diseases.

It will hardly be denied that we owe to a surgeon, Mr. Abernethy, one of the best practical works, for the physician as well as surgeon, of the present day. We think it will be almost as universally acknowledged that the Lectures of Sir Astley Cooper constitute a gift from surgery to the profession at large, equally valuable; and in a practical point of view, with a few exceptions perhaps, superior to any works which have been published by physicians themselves. The volumes now published contain thirty lectures. The nine first relate to those general principles of disease and treatment of disease, which are of common application in all branches of the profession; the remaining twenty-one treat of particular surgical diseases, but they are not on that account the less deserving the attention of physicians in this country, since upon them devolves the principal part of that kind of practice which in Europe is given to surgeons.

They appear to have been made up from notes taken during their delivery; we suppose by the editor Mr Tyrrell. We judge this to have been the case from the loose and familiar manner in which they are written, the frequent inaccuracy of expression, in short from their general extemporaneous character as it respects language and the construction of sentences; for we do not intend to apply this remark to the method according to which the subjects of surgery are treated. It seems impossible that these lectures should ever have been written out by Sir Astley himself; or even by Mr Tyrrell, with any other view than that of making them as nearly as possible in language and expression, as well as in thoughts, a transcript of the extemporaneous addresses of the lecturer to his class. It is a consequence of this circumstance, that there is in many instances a considerable inaccuracy of expression, where accuracy is desirable and necessary, as for instance in definitions; a kind of inaccuracy into which any man, even were he the most profound and just thinker in the world, is constantly liable to fall, if he be not in the habit of reducing his thoughts and reasonings, but above all his results, into written language. A printed book is a very different thing from an extemporaneous lecture. That may be very clear and sufficiently definite, when taken in connexion with the obvious intention of the lecturer, made forcible by his air and manner, and illustrated by incidental facts and remarks; which will be either very indefinite or very obscure, when written

down in the very words which were used in extemporaneous speaking, and inserted baldly in a printed volume.

The first lecture is upon 'irritation.' This, says the author, being the foundation of surgical science, must be carefully studied and clearly understood. 'The doctrine of irritation,' he goes on to remark, 'teaches the immediate and remote effects of injuries; in what manner nature restores them on the one hand; and on the other the mode in which apparently trifling accidents prove ultimately destructive.' A little further on—'irritation may be defined to be an altered action excited in the body by an unnatural impression.' It is obvious at first sight that the language here used is very open to criticism, and we have really found it very difficult to fix precisely the sense in which the term irritation is used. The same vagueness extends throughout the lecture in the use of this term, and although the practical lessons which any man may derive from studying it are highly instructive, yet we think he would find it difficult to define exactly what Mr Cooper means in all cases by irritation. Still as we proceed to his illustrations of the laws of irritation, we see more clearly what he would teach us, and will dwell no longer upon defects of this nature.

Irritation sometimes produces merely diseased sensation, such as pain in the knee and foot from diseased hip, pain in the inner part of the thighs from diseased prostate gland. Sometimes irritation produces diseased action, as inflammation of the testicle from irritation of the urethra, swellings of the breast from morbid changes of the function of the uterus, retention of urine after operation for popliteal aneurism, and the vomiting which so frequently occurs after injury of various parts of the body.

Irritation is communicated through the medium of the nerves to other parts of the system beside that in which it originally existed. Sometimes the course of the irritation, or of sympathy with the irritation, is from the trunk of a nerve towards its extremities, as where pain in the knee and foot arises from diseased hip. In other cases it is in the opposite direction from the extremities towards the centre—and sometimes it is through the brain, as in a case of hemiplegia produced by a carious tooth.

Irritation is either local or general. An instance of local irritation, is found where a decayed tooth produces an abscess in the cheek which opens externally upon the face, and cannot be healed until the tooth be extracted. Instances of general irritation (or as Mr Cooper now calls it, the *general effects*

of irritation) are found in the faintness and sickness produced by passing a bougie into the urethra for the first time, in the febrile action which accompanies dentition, in the partial paralysis which sometimes occurs under the same circumstances, and in the destruction of life from a blow upon the stomach. The symptoms of the constitutional irritation which follow accidents are thus described.

'A person receives an injury to one of his legs, occasioning a compound fracture of one or both bones: constitutional irritation soon commences; he first complains of pain in his loins, as if from an uneasy position; this extends to the back, in the course of the spinal marrow to the brain, occasioning pain in the head; he then becomes restless, and his countenance expresses anxiety; the tongue, at first, is covered with a whitish fur; but as the irritation increases it becomes yellow, and subsequently, in the aggravated stage, it has a dark brown coating; loss of appetite, nausea, and vomiting, evince derangement of the stomach; the secretion of the liver is so far diminished, that bile is produced in very small quantity, so that the motions are white, and sometimes a fluid is produced, which differs much from bile in its appearance.* The secretion of the intestines is diminished and unhealthy; the bowels are constipated, the kidneys secrete but little urine, and it is of a deep colour; the skin has its secretion stopped, and it is hot and dry. As these symptoms arise, the pulse quickens, becomes hard, irregular, and ultimately intermittent: corresponding alterations take place in the respiration; it being, at first, somewhat quicker, and finally much hurried and laborious. The functions of the brain, spinal marrow, and nerves become further changed; subsultus tendinum is produced; slight impressions on the senses become almost intolerable; the mind is at first hurried, and then the patient sinks into a low, muttering delirium. The grand sympathetic nerve becomes further affected; the abdomen swells from accumulated flatus in the intestines; vomiting and purging often both occur; hiccough is produced, and the patient, absolutely worn out by irritation, expires. Thus in constitutional irritation, whether from injury, or from external or internal disease, every part of the system may be affected, and it appears to take place in the following way: When a part of the body receives an injury, the nerves convey a knowledge of it to the important organs, as the spinal marrow, brain, heart, stomach, &c.: nature immediately commences the restorative process, by stopping all the customary secretions;

* A child received a blow on the head, which occasioned inflammation of the pia mater, of which it died. On examination after death, a colourless fluid was found in the gall-bladder, some of which is preserved in a glass tube, in the museum at Guy's Hospital.

When great constitutional irritation exists in children, their motions, when exposed to the air, become green, and this is more particularly the case when the brain is chiefly affected.

the various outlets being thus closed, the blood collects in quantities in the heart and large blood vessels, which propel it with unusual force to the injured part; giving rise to inflammation in whatever form can best accomplish the desired effect. This is an illustration of the manner in which nature contends for a cure; she occasionally requires to have her ardour checked, or aided, in proportion to her powers: we must watch with "eagle's eyes" her proceedings, and be exceedingly cautious in our interference; for by restoring the natural secretions too soon, we may, by thus abstracting blood from the injured part, prevent the restorative process; or, by adding to excitement, we may prevent the beautiful and judicious operations of nature, by producing too much action.' pp. 16, 17.-

The degree of this irritation will depend upon several causes, 1st, on the importance of the part injured; 2d, the extent of the injury; 3d, its nature; 4th, the degree of difficulty with which the part injured is capable of being restored; 5th, on the state of the constitution as dependent upon age, habits of life and original predisposition. Among other states of constitution which predispose it to suffer very much from causes of irritation, Sir Astley alludes to that in which students are made to suffer severely from very slight wounds made in dissecting. Such cases, he remarks, seldom occur when students first come up from the country in the fall, but very often in the spring, when they have spent a whole winter in dissecting rooms and in the wards of a hospital. He infers that the evil does not arise so much from the wound itself, and the absorbed matter, as from the state of the constitution, when it is inflicted. That climate increases irritability and diminishes the vital powers, is shown by the proneness to tetanus in natives of hot countries, and the danger there is in operating upon them, from the risk that the inflammation may become erysipelatous and terminate in gangrene.

Injuries destroy life in three ways, 1st, When slight, by keeping up a continued constitutional irritation, and thus wearing out the system; 2. When more severe by occasioning excess of action; 3. The most severe by a shock to the nervous system cause death without producing any action at all—thus a person will die soon after amputation, or after a limb has been crushed, without any rising of the pulse or animal heat after the accident.

In chronic diseases there is a continued irritation which exhibits different symptoms.

' Irritation in chronic diseases, or continued irritation, exhibits symptoms somewhat different. There is a chilliness succeeded by

heat, sometimes once, at others twice, in twenty-four hours: the tongue has a white fur, or is unnaturally red and smooth, as if deprived of its cuticle; a loss of appetite, with occasional vomiting; an irregular state of the bowels, obstinate costiveness is succeeded by profuse diarrhoea; the urine is smaller in quantity than usual; the skin is sometimes hot, so as to be parched and dry; at others copious perspiration attends, especially during the night, so as to oblige the patient to change the linen in the morning; the pulse is quick, from 90 to 120 in a minute; the respiration is difficult and hurried, and often attended with a slight cough; the sleep is interrupted; the mind is irritable; and the patient is at length worn out, by an action which is exhausting, from its continued frequency, rather than its violence.' p. 25.

Little is found upon dissection to explain the cause of death from irritation. In children dying from scalds there is a fullness of blood in the pia mater and spinal marrow; and in those from teething, an effusion of from two to five ounces of water in the brain.

The treatment of irritation is local and general. When there is a local difficulty, this demands the principal attention, unless it have been produced or is kept up by a deranged state of the constitution, in which case, the constitution is first to be set right. A remarkable case is related of the great effect of an apparently slight local cause in producing dangerous constitutional irritation. It was that of a patient with compound fracture of the tibia, who at first went on very well, but after a short time became so severely affected in his general health that his life was despaired of. On examining the wound, a loose portion of bone was discovered pressing against the tibialis anticus muscle; as soon as this was removed, the constitutional irritation subsided, and the health was very speedily restored.

Constitutional irritation, according to our author, is to be very carefully managed. It must not be too suddenly subdued, or entirely destroyed. It is a salutary effort of the system. A certain degree of irritation evinces that nature is endeavouring to accomplish the restorative process. It is, therefore, to be kept within bounds, carefully watched, and if violent, checked, but never entirely subdued.

The principle involved in these directions is a fundamental one with Sir Astley in the management of diseases both locally and constitutionally. He frequently refers to it, and as frequently warns us against interfering inconsiderately, with the processes which nature institutes for the repair of injuries, upon the supposition that they are essentially morbid, and of

an injurious tendency. The following remarks on bleeding illustrate his notions on this subject:

'The abstraction of blood lessens the momentum of the circulation, and prevents the danger of congestion in any of the vital organs; but it must be taken away with the greatest care, not to diminish too much the powers of the constitution. A man was taken into Guy's Hospital, having a concussion on the brain; the dresser, who admitted him, was a great admirer of venesection, and consequently bled the patient frequently, and in large quantities; in ten days the man died. On examining the head after death, a very slight laceration of the brain was discovered, but no attempt at restoration: the continued abstraction of blood had deprived nature of her restorative powers. In compound fractures it is extremely dangerous to bleed largely; as, by lessening the power of the constitution too much, there is not sufficient energy to perform the task of reparation.'

'If an important disease exist, nature will not always have power to perform the necessary duty of restoration. A man was admitted into St Thomas's Hospital, under Mr Cline, for a simple fracture of the os humeri; the fracture did not unite, and scarcely any inflammation arose: on the twenty-ninth day the man died suddenly. Upon dissection an aneurism was found in his aorta, which had burst: very little if any change had taken place in the fractured part.' p. 28.

The means of reducing irritation are, 1. By restoring the secretions of the system. When it is severe we are to aim at all the outlets at once by administering mercurials to act on the liver, aperients on the intestines, diuretics on the kidneys, and antimonials on the skin. 2. By allaying the excitement of the nervous system by opium in combination with the preceding medicines. Ammonia, potass and soda, and some of their saline combinations, combined with opium, answer also the same purpose. *Hyoscyamus* and *conium* are excellent remedies for the same purpose, particularly where opium disagrees.

In chronic irritation all efforts to cure by sudden and violent means are discouraged; "a chronic treatment is required, and by slow degrees only can you restore the body to a healthy state. Let me repeat, *all the secretions must be restored, as this is the grand principle in the cure of disease.*" They are to be restored by the same medicines recommended above, used with a moderation and caution corresponding to the character of the case.

This lecture concludes with some remarks upon the influence of certain states of the mind upon diseases. The lecturer inculcates the great importance of cultivating a cheerful and easy state of mind in our patients, of keeping up their

hopes and courage; and relates some striking cases of the bad grief, anger and fear in producing disease, and in retarding its cure.

It will be perceived from this account of Mr Cooper's views of the nature of irritation, that they are *essentially* the same as those of Dr Fordyce, though developed with far less clearness and logical definiteness. In this respect there is certainly a great defect; but they are so well illustrated and appear to be the result of so much practical tact, sagacity and good judgment, that the careful reader will derive from them very great advantage. There is no confusion or inconsistency in the ideas of the writer himself, although this would seem to be sometimes the case; it is wholly a literary defect.

Lecture II. On Inflammation.—Sir Astley begins this lecture by a reference to the same fundamental principle which we have already pointed out. 'Inflammation is the means by which local injuries are repaired, and it may therefore be considered as the restorative principle.' He describes inflammation briefly and in the usual manner by a consideration of its four principal symptoms and its four terminations. He next considers its modifications as residing in the different textures, as being healthy or specific, acute or chronic. His remarks under all these heads are practically very valuable; but we have not room to insert them, and they are too concise for analysis. We quote a few observations on inflamed veins and on what he calls irritable inflammation:—

'Veins, inflamed from wounds, form hard and broad cords, extremely tender to the touch, and if from bleeding, from the wounded part to the axilla. I have seen several patients die from this cause; and in the great number the bleeding was required for dyspnoea. Upon examination, the inner coats of the veins are found adherent, and I have seen suppuration in the vein; and once an abscess in the longitudinal sinus of the dura mater (which is a vein in function,) of which we have a beautiful specimen in the anatomical collection at St Thomas's Hospital. When veins inflame from ligatures, they generally do so more below the ligature than above it, and excessive distention, from the interruption to the return of the blood, seems to be the cause of this circumstance. I have seen several persons die from ligatures being put on one of their veins, and the appearances on dissection were excessive distention from accumulated blood below the ligature: adhesion above the ligature, and a red internal surface extending towards the heart.' pp. 39, 40.

'There is another kind of inflammation, which I would call the irritable; in this disorder the blood-vessels are much less affected than the nerves. You are called to attend a person, who tells you

that he feels in the hand, arm, or some other part, most agonizing pain: if not experienced in these matters, you will be inclined to doubt the correctness of your patient's statement, as you cannot discover any diseased appearance of the part. Some time ago I was consulted by a lady who had this painful affection in the foot, and I employed various remedies without her being relieved: finding no improvement, and suffering in health, she went to the coast, and there used a steam bath; and, without any further means, the pain quickly subsided. The eyes are very subject to this torturing disorder. But no part is more frequently attacked by it than the breasts of young women. It produces such a degree of tenderness, that they cannot bear the slightest pressure: the pain extends to the shoulder, down the arm, and even to the elbow and fingers, accompanied by constitutional irritation. To cure these pains, and general derangement, such medicines must be given as will influence the secretions, but especially that of the uterus. This irritable inflammation sometimes attacks the testicles, rendering them extremely sensitive, so that the patient can scarcely sustain the pressure of his clothes. It is attended with little increase in the size of the gland. I have been obliged to remove the testicle in three persons for this disease. The subject of one of these operations was a gentleman from South Carolina: he came to England for advice, and consulted many of the surgeons in London, but without experiencing any relief of his sufferings, from the various remedies they advised. He at length requested me to remove the torturing part; this I did, and he returned to his native country quite well. The bladder is also occasionally disordered by this irritable inflammation, and the symptoms, in many respects, resemble those of stone; in both cases there is pain in making water, and blood is sometimes mixed with the urine. The grand difference in these two cases is this: the irritable bladder is most painful when distended; that which contains a stone, when emptied. On dissection, the inner coat of an irritable bladder has been seen the colour of red velvet. I have known this irritable inflammation attack the rectum, and produce excessive suffering, which was relieved by large doses of soda.—Soda, rhubarb, and the compound powder of ipecacuanha, are the best remedies.' pp. 46—48.

Lecture III. embraces the treatment of inflammation; and this is either constitutional, or local, or both. The first remedy is *bleeding*. This is indicated by a hard pulse, but not by a merely quick pulse, which rather proceeds from irritability, than from inflammation. Buffy or cupped blood is not alone evidence of the propriety of bleeding, for these have been observed in the last stage of scurvy. The blood may be buffy and lose its red particles from quickness of action only, without inflammation. If the quantity of serum be very large, it is *alone* an indication against bleeding again; though other *concomitant* circumstances may render the repetition proper.

As it regards the quantity to be taken, no definite rules are given. We are informed that the quantity of blood which can be drawn from an animal before it dies, is about one part in sixteen of its whole weight. This probably means the quantity which can be taken at once; and the rule is drawn from an experiment made upon a small dog. It may be true of dogs, but we apprehend it will hardly hold with regard to men; and we should be loth, on the strength of it, to part with the quantity which should just fall short of our sixteenth. The following caution is worthy of all attention:—

‘When you are required to take charge of patients suffering from an injury, which demands a length of time for its restoration, you must be exceedingly careful how you take away blood from the system generally, but must in preference adopt local bleeding; for if, as I have observed, you adopt a system of free depletion, nature will not be equal to the restoration of the injured parts, and the most disastrous consequences follow the indiscriminate employment of blood-letting. There is not a greater error than this in the practice of surgery.*’ pp. 56, 57.

The second mode of relieving inflammation is by restoring the secretions; for in severe inflammations, these are all suppressed or diminished. This is to be done by purgatives, mercurials, diaphoretics and diuretics, as directed in the lecture on irritation.

‘When, after bleeding and administering aperients, the inflammation is not reduced, but the pain increases, and the pulse acquires a jerking or palpitating feel; do not bleed again generally, but give calomel and the compound powder of ipecacuanha to lessen the nervous irritability, and to open the intestinal and cutaneous pores. I had thrice bled a very irritable patient on account of an inflammation of the testicle, yet the pain increased, and the artery at the wrist was raised with a jerk at each pulsation; he was quickly relieved by taking Dover’s powder with calomel. The inflammation in such cases is supported by the irritability of the system.’ p. 59.

Chronic inflammation, we are recommended to treat precisely on the same principles as chronic irritation. An excellent medicine for chronic complaints is the oxymuriate of mercury dissolved in nitrous ether, and combined with tincture of bark

* A stout man was admitted into Guy’s Hospital, having a simple fracture of the tibia, with considerable contusion of the surrounding parts; a day or two after his admission, he had severe constitutional irritation, and acute pain, with spasmodic action of the muscles near the seat of injury. To relieve these symptoms, the dresser was directed to take some blood from the arm of the patient, which he did; but thinking it proper that faintness should be produced, as a proof of its effect on the constitution, and forgetting that the patient was in a recumbent position, he abstracted so large a quantity of blood, that all power of restoration was completely annihilated, and the man died.—T.

or of rhubarb or with decoction of sarsaparilla, and, in children, small and frequent doses of the hydrarg. c retâ and rhubarb, or of the oxymur. hydrarg. dissolved in tincture of bark. In some cases, where the use of mercury is not proper, a compound of rhubarb and carbonate of iron, or of rhubarb, soda, and columbo, in small and frequent doses may be substituted.

As a local application for reducing inflammation, an evaporating lotion of spirit and water is recommended, but not absolute cold, as in the application of snow and ice, except in deep-seated inflammation, as in that of the brain. Heat and moisture, applied in the form either of fomentations or poultices, are also recommended, as well as leeching, cupping, counter-irritation, position and rest.

In applying stimulating lotions in chronic inflammation, we are told to cover the parts with oiled silk to prevent evaporation, which would counteract our intentions, which should be to excite heat and action.

The next Lecture, the fourth, is on Adhesive Inflammation. This, it will not be necessary to analyze. Sir Astley relates a case, in which adhesion took place between the mucous walls of the urethra in consequence of a burn; the subject was a kangaroo; and although the burn was slight, the animal died.

The time required before the commencement of the adhesive inflammation differs according to the structure of the part and the nature of the constitution. In the cavity of the abdomen, the intestines will be glued together in nineteen hours after the adhesive inflammation has begun. When adhesive matter has been formed, blood-vessels soon enter it, and it gradually becomes organized. Within twenty-four hours after it has been deposited, small bloody spots may be seen marking the future situation of the vessels which are to nourish it; but it is not completely organized under ten days. These vessels do not originate in the new substance, but are formed by the elongation of the *vasa vasorum* of the neighbouring arteries.

Lecture V. is on Suppuration. Passing over the account of the symptoms of suppuration, general and local, and of the principles of the process, we quote the following remarks on the nature of pus:—

‘ Pus is a yellow fluid: if poured into water it sinks in it, and is consequently of greater specific gravity than water; on the other hand, mucus generally swims in water. It appears to contain the constituent parts of the blood; examined under the microscope, it possesses globules, which differ from those of the blood in colour, but greatly resembles them in their general appearance. These

globules float in a fluid which resembles serum in its coagulating by heat, as is easily seen by exposing pus in a spoon over the flame of a candle. Pus also contains abundance of fibrin: if water be poured upon pus until the solid part, which remains at the bottom of the vessel, be entirely deprived of its serum and globules, numerous portions of fibrin are found remaining; although not exactly the same size, yet they have a great uniformity of appearance. Thus pus is composed of serum, fibrin, and globules; and if I were to hazard a theory upon this subject, I should say that pus was composed of the constituent parts of the blood, slightly changed in their character by inflammation.' p. 95.

There are many important remarks in this lecture, on the relation of the suppurative to the other stages of inflammation, which are, perhaps, mostly familiar to practitioners, but highly necessary to be carefully inculcated upon the younger portion of the profession. For example:—

'A state of fever, or an inflammatory excitement in the part, will suspend the secretion of matter. We see, in fevers, irritable sores becoming dry, and often almost appear to heal, whilst that state of constitution continues; but becoming again irritable and secreting largely when the fever subsides.

'When inflammation occurs upon a leg which has been long the subject of ulcer, the sore ceases to secrete whilst the surrounding skin is red, but matter is reproduced so soon as the inflammation ceases. The character also of the matter becomes changed by local inflammation. Thus we see serum substituted for pus, or a red fluid, composed of serum and red particles, produced whilst inflammation exists in the vicinity of a sore.

'The fluid last described often irritates the surrounding skin and produces excoriation; but pus, when formed in its usual manner, is incapable of producing irritation on the surrounding parts, so that we see the skin for days, and even weeks, covered with the matter produced in compound fracture, yet it remains healthy; but let there be fever, or the irritation of an exfoliating bone be present, and the skin soon becomes inflamed from the different quality of the fluid produced.' p. 97.

The lecture concludes with some cautions on the subject of stopping long continued suppuration. When sores have existed long, nature appears to calculate for the quantity of blood necessary to supply their secretion—so that, if they are healed, this blood is determined to other parts. Hence, inflammations of the lungs and apoplexy sometimes ensue. This may be prevented by small doses of calomel and aperients, or by bleeding—a mode of practice which Mr Cooper prefers to the old one of issues and setons; though he still acknowledges that the latter are sometimes very beneficial.

The suppression of discharges from the ear is represented

as attended with peculiar danger of producing an effusion of matter on the brain; and several cases are related, in which apoplectic and paralytic symptoms were occasioned by this cause—in each of which, matter was found at some place within the cranium.

Lecture VI. On Ulceration. ‘Ulceration,’ says Mr Cooper, ‘is the absorption of any constituent part of the body.’ This has been called, and it at first appears, a defective definition; but if the proper meaning of the qualifying term, constituent, be taken into account, we apprehend it will be found correct. The great cause of ulceration is inflammation united with pressure; and it will take place from a due combination of the two, or from a very considerable degree of either. If inflammation be severe, ulceration will ensue from very slight pressure; and if the pressure be great, it will be produced by slight inflammation, as happens in cases of aneurism.

The laws of ulceration are laid down and enforced in the author’s usual happy manner. He does not, that we are aware, assert any new principles or inculcate any new doctrines, but he brings to the mind the practical application and importance of those which are generally known, by a copiousness, facility, and aptness of illustration, which impresses them peculiarly upon us.

‘In those parts which are endued with little vascularity, ulceration takes place with difficulty. This is the case with tendons. Tendinous parts possess very little blood; very few arteries or absorbent vessels are distributed to them. Hence the process of absorption proceeds with great difficulty, and tendons will slough to a great extent, rather than become absorbed. This circumstance must influence our practice. In abscess, under the fascia, an incision should be made as soon as possible through the covering, to liberate the confined matter. So in abscess of the finger, when the constitution suffers because the theca will not give way to the process of ulceration, and the nervous system becomes irritated by the pressure of confined matter, an early incision should be made to liberate the matter, and give relief to the constitution. The same practice should be pursued in abscess of the palm of the hand.*’ p. 108.

The danger from abscess arises, 1st, from their size, which renders it too difficult a task for nature to repair the devasta-

* The blood vessels ulcerate with extreme difficulty, and they may be occasionally seen completely exposed, from the destruction of the surrounding parts by the ulcerative process. In the extensive ulcers, which sometimes occur in the groin of debilitated patients, from venereal affection, I have several times seen a portion of the saphena major vein, as well as a part of the femoral vessels, exposed; and I have a cast in my possession (taken after death from a young woman who died in Guy’s Hospital, from an extensive sore of this description), in which this exposure of these vessels is very extensive.—T.

tion they have made. Hence we are advised, in large abscesses, to endeavour to bring about adhesion between their walls by pressure, after their contents have been evacuated.

2. From their number, as when a great number of little abscesses on the surface of the body, in small-pox, destroys life.

3. From their situation in vital parts, or from their being so situated as to press on vital parts.

'A woman was admitted into this hospital for a complaint in the throat, occasioned by swallowing a pointed bone. All she complained of at first was, a soreness in the throat; but she was shortly after seized with difficulty of breathing, which increased until she died. On examination after death, I found, upon making an incision into the pharynx, that between it and the fore part of the vertebra, a large abscess had formed, which, by pressing the pharynx forwards on the epiglottis and glottis, occasioned difficulty of breathing, and in the end destroyed life. Shortly after this, Dr Babington came to Guy's hospital with a friend of his, who was labouring under great difficulty of breathing. He requested me to examine his throat; having put my finger on the back of the pharynx, and felt fluctuation there, I told him that this was a case, of which I had seen an instance, in which the patient had died from a collection of matter formed in the same situation. I immediately procured a trocar, and passing it into the pharynx, a considerable quantity of matter was discharged, and the patient was relieved. This was a case, which, but for an operation, would probably have terminated fatally by the pressure of the matter on the glottis and epiglottis. In the same manner, abscesses in the perineum or between the prostate gland and the rectum, will, by their pressure on the urethra, sometimes occasion retention of urine, and destroy life.' pp. 112, 113.

The period occupied during the formation of an acute abscess is generally about three weeks, till matter is discharged. But chronic abscesses are often several months, as is the case with psoas abscess. Two cases are related of abscesses of this character in the female breast. Both of them were brought to Mr Cooper for an operation; a slight fluctuation being perceived, matter was suspected, a puncture made, and matter was discharged. Two cases of chronic abscess are alluded to, in which the breast was actually removed, and the real nature of the disease not detected till too late.

In the treatment of acute abscess, Mr Cooper recommends to give liquor ammoniæ acetat: sulph. magnesia and opium several times a day; a course which, he thinks, does much good; to cover the inflamed part with oiled silk to prevent evaporation, and apply fomentations and poultices. He also recommends, when they go through with their different stages with-

out great pain or constitutional irritation, to leave them to nature; but when they occur under aponeurotic fasciæ, to open them as early as fluctuation can be detected. The same direction is given where an abscess forms close to a bone; except when it occurs between the cranium and pericranium from severe courses of mercury, and is *unattended with any blush upon the skin*. Where the blush occurs, a puncture may be made, for the matter will not be absorbed; where there is no blush, it will be removed by purging and drinking freely of decoction of sarsaparilla.

There is no ground, according to Sir Astley, for the belief that the absorption of matter creates hectic fever. Hectic fever is 'merely the result of the efforts of the constitution to repair an injury, or to cure a disease.' Neither is it his opinion that the admission of air into abscesses is the cause of that irritation which follows the opening of them.

'He who holds that the admission of air produces the irritation attending the opening of abscesses, takes a narrow and partial view of the case; for the cause of the irritation is as follows: If a wound be made into any cavity of the body, be it an abscess or a natural cavity, soon after the vessels of the part are divided, inflammation arises to heal the wound, whether it be exposed to the air or not. If it heal by adhesion, the influence is slight and directly terminates; but if the adhesive inflammation be insufficient or imperfect, then a suppurative inflammation follows, and granulations arise, which process produces violent influence both upon the part and constitution. The cause is, therefore, the division of the blood vessels, and not the presence of air; and its degree depends upon the ease or difficulty with which the injury is repaired.' pp. 123, 124.

Lecture VII. Granulation. This is the second process which nature institutes for the purpose of filling up ulcers and healing up wounds, adhesion being the first. These processes are not really so different as is usually supposed. Mr Cooper in fact represents them as differing in the situation of the surface where the process is going on, rather than in the nature of the process itself.

'The difference in the process may be easily explained. Suppose an abscess be opened; the result is, that adhesive inflammation is produced on the internal surface of the cavity. A layer of adhesive matter is thrown out; and if the sides of the abscess are brought together by a roller, you may often prevent the future formation of matter. But if the union by adhesion does not take place; then granulations are formed as I have described.' p. 126.

In ulcers of recent origin, granulations are not good absorbing surfaces; but where they have existed for any length of time, they become so. Hence, persons are frequently salivat-

ed by the application of mercury externally. In sores of this kind, it is necessary to be cautious in making external applications. Arsenic is, sometimes, in this way productive of very dangerous and fatal effects; and opium may be a very useful, or a very injurious application, to an open sore, according to the nature of the case and the quantity of the article employed.

Cicatrization proceeds invariably from the circumference to the centre of a sore. Where patches of skin appear to spring up in the centre, they arise from some portion of skin which has not been completely destroyed. A circular sore, *ceteris paribus*, is much longer in healing than a longitudinal one, and sores on the back of the leg, or in the folds of the joints, are also very slow in healing from their situation. Where there has been much loss of skin also, ulcers heal with great difficulty. Where there has been an extensive sore, particularly where that sore has been produced by a burn, after cicatrization has completely taken place, the new skin contracts and occasions great deformity. This result is usually attributed to the neglect or thoughtlessness of the friends or medical attendant; but, according to Mr Cooper, it cannot be prevented. The contraction takes place in the cicatrix, after the process of healing is complete, and when every precaution is taken to prevent it. In the reparation of injuries by the process of inflammation, granulation, &c. all the textures of the body may be reproduced except two, viz. muscles, and the cartilages of the ribs, in all but very young subjects. Muscles, when injured, unite by a tendinous substance, and the cartilages of the ribs by bone.

The Eighth Lecture is on Ulcers. The principal treatment of ulcers, in the healthy state, consists in the application of poultices and fomentations to promote the growth of granulations, and then of unctuous substances, or adhesive plaster, to promote cicatrization. Too great prominence of the granulations is repressed by lint in the centre, and caustic substances at the edges of the ulcer, or by adhesive plaster. The common plaster, in the opinion of Mr Cooper, is too stimulating, and he recommends equal parts of emp. thuris comp. and emp. saponis, as much preferable. Where the granulations are languid, the red precipitate or some stimulating lotion or ointment should be applied; the sore should be bound up with a roller, and the patient exercise freely and use a nutritious diet. In an inflamed ulcer, which is known by the inflamed state of the surrounding parts, by a discharge of bloody serum instead of pus, and a disposition to slough, the patient must rest and keep in the recumbent position. Poultices and fomentations, with

leeches around the edges, and purgatives, constitute the best treatment.

In gangrenous ulcers, the surface is free from discharge ; the edges are livid, with vesicles on them, and the patient suffers from irritative fever. The best applications in these cases are the nitric and sulphuric acids, diluted, or a solution of nitre. Poultices, with port wine, porter, dregs of beer, and carrots, are also of service, and, internally, we are to give ammonia, brandy, and opium. For irritable ulcers, Mr Cooper recommends an ointment of cetaceous and mild mercurial ointment, with opium, and Mr Tyrrell a lotion of lime water, opium, and mucilage. As internal remedies, Mr Cooper advises calomel and opium and decoction of sarsaparilla. Sinuous ulcers may be sometimes cured by stimulating injections, even fistula in ano, but this rarely. One case is related, in which an injection of port wine, undiluted, succeeded. Ulcers connected with varicose veins, the tying of the veins, is deprecated in the strongest language ; and several cases are referred to, in which it proved fatal. They should be treated by pressure, and by puncturing the veins frequently. The ulcer on the face, known by the name of *noli me tangere*, exists in the glands or follicles of the nose, those small cavities from which we can squeeze sebaceous matter. The ulceration sometimes extends so as to destroy the cartilages of the nose. The following ointment is recommended.

R Arsenic oxyd.
Sulph. flor aa 3j
Ungt. cetacei 3j

M fiat unguentum.

Lecture IX. Gangrene. This is defined to be the death of one part of the body, while the other parts retain their natural powers.

The symptoms of gangrene differ according to the manner in which it is produced. When it is the result of high and active inflammation, the pain attending its production is exceedingly severe ; the inflammation is very extensive ; there is a blush on the surrounding skin ; and generally, though not always, a considerable degree of swelling. The secretion from any sore which may exist ceases, the surface of the skin becomes of a purple colour prior to its death, but afterwards is rather of a brownish tinge. The cuticle is raised ; a vesication is produced ; and when this breaks, it is found to contain a bloody serum. When the serum is discharged, the skin assumes the gangrenous appearance, and becomes perfectly insensible. The vesications extend to parts beyond the ulceration ; thus in sores of the leg we frequently see a large portion of the

skin giving way, and the gangrenous vesications extending beyond the ulcerated surface.

' The constitution suffers considerable derangement from gangrene ; there is a high degree of irritative fever, and the pulse is often exceedingly quick : it is generally said to become slow when gangrene takes place ; but I have never observed this. I have indeed occasionally remarked but a few beats in a minute, because it is very frequently intermittent ; still the pulse is quick : it is said also to become soft, but I should not say that this is the character of the pulse in gangrene. It is quick, very small and thready, and generally irregular.

' Gangrene seldom occurs without delirium, and it is attended also with vomiting and hiccough. Hiccough, indeed, is the characteristic sign of gangrene, and it takes place though the gangrene may be situated in a part very distant from the stomach ; as, for example, in the toe. The fact is, that when gangrene arises from a diseased state of the constitution, the stomach is extremely disordered, and its derangement is followed by spasmodic contraction of the diaphragm, producing hiccough. This symptom does not arise from any direct action on the diaphragm, but from its sympathy with the deranged state of the stomach. If you wish to correct hiccough, you may arrest it for a time by giving some slight stimulus, or even by adopting opposite means. Thus a glass of cold water will suspend it for a considerable period. Such are the symptoms when gangrene is the result of excessive action.' pp. 164, 165.

Gangrene is sometimes the result of a low degree of action ; as in parts which have been exposed to a very low temperature. Even where these have not been frozen, their powers are so much diminished that a very slight degree of inflammation occasions gangrene. Hence, extreme caution is necessary in exposing them to warmth.

When gangrene has taken place, there is a natural process by which the dead part is separated, when the constitution retains power enough to carry it through. First, a white line appears in the skin, then the cutis vera is absorbed all along this line ; next the cellular membrane separates, then the muscles and nerves. The blood in the vessels of the gangrenous part being first coagulated, the extremities of the vessels of the sound part are also filled with coagulated blood, which seals them up and destroys their cavity. The vessels then divide ; and, finally, the bones are also separated, if any bones are included in the part whose life is destroyed. A case is mentioned, as existing in one of the hospitals, in which, after the operation for popliteal aneurism, gangrene took place in the leg, and a separation was finally effected through the middle of the calf without the aid of any surgical operation, wholly by the efforts of nature.

Gangrene is frequently the effect of a debilitated state of the constitution, as when the nates slough after a long continued fever, from lying upon them.

'In slight cases of scarlatina, the most horrible effects will sometimes arise from gangrene. The tonsils slough to a great extent; parts of the eustachian tube, and even of the tympanum, will separate, and large portions of bone exfoliate. The worst effects of this kind are observed in those cases of scarlatina, in which the fever is not the most violent. The measles are very apt to be followed by sloughing. In this town it sometimes happens, that a large blister applied to the chest of a child labouring under measles occasions a high degree of inflammation, producing gangrene, and endangering the life of the patient. In constitutions of an unsavourable kind, I have seen the measles produce a slough, forming an aperture through the cheek of the child, by which its food escaped, and life was soon destroyed.' p. 170.

Effects like these are rarely if ever witnessed among us, and are, probably, to be attributed to the confined and vitiated air and the unnatural habits of life incident to an immense metropolis.

'There are also some parts of the body naturally constituted feebly: as, for example, tendons. When inflammation attacks a tendinous structure, it runs very readily into a state of gangrene. Hence the danger of making incisions into tendons; the inflammation which follows affects the nervous system with the highest degree of irritability, and produces tetanic symptoms. It is not the injury to the nerves which produces tetanus, but sympathy with the injury to the tendon.' p. 171.

Gangrene is generally preceded by inflammation, but it sometimes occurs without this antecedent. A black spot will appear in some part, and gradually spread till it occupies a large surface. Here it is a defect of circulation, and not an increase which causes the death of the part. Aneurism produces gangrene by pressure on the vessels, and the division of a considerable vessel will have the same effect. A case is mentioned of a person dying of a fracture of the thigh bone, which had divided the artery, produced pressure, and thus impeded the circulation so as to cause gangrene.

In the treatment of inflammation, where gangrene is apprehended, it is necessary to be cautious in the adoption of measures of a debilitating tendency, lest we exhaust the powers of the constitution. Neither should stimulants be early given. We are recommended to employ local bleeding; and in the country, and in good constitutions, general bleeding sparingly. A few grains of calomel may be given at night, and several times in the day the liquor ammoniæ acet. with Tr. of opium.

Where gangrene is threatened from cold, the object is to stimulate gently, but to moderate the stimulus by evaporation; and for this purpose Mr Cooper recommends friction with camphorated spirit of wine.

When gangrene has commenced, the poultice of oatmeal mixed with stale-beer grounds and spirituous fomentations, constitute the best applications. The constitution is also to be supported, and this is best done by carbonate of ammonia and opium. From seven to ten grains of the carbonate of ammonia, and from twenty to thirty drops of laudanum, should be given every five or six hours. Mr Cooper thinks the effects of bark not decidedly good; but recommends the trial of the sulphate of quinine; carb. of ammonia with musk, in doses of five grains of the former to ten of the latter, every four hours, is sometimes of use in sloughing sores, where the gangrene is much disposed to spread. A port wine poultice is also an admirable application in such cases, as is spirit of turpentine, a mixture of the tincture of opium and the liquid subacetate of lead or of vinegar and the camphorated mixture, but especially the nitric acid and water.

Mr Cooper next considers the propriety of amputating in cases of gangrene. As a general principle in constitutional gangrene, he advises not to operate till the sloughing process has commenced, and healthy granulations are to be seen on the sore. But with respect to gangrene from diminished action, or from accident, he advises to amputate without hesitation; for under such circumstances, 'the operation, instead of increasing the irritability of the constitution, by removing the cause of irritation, becomes the means of preserving the life of the patient.'

Gangrene in the aged is produced by very slight causes; such as very slight wounds in cutting corns, or toe nails. This disposition is frequently owing to an ossification of the small arteries. The port wine and yeast poultices, are the best local, and opium and ammonia, the best internal remedies. In these cases amputation must never be performed.

Carbuncle is occasioned by a gangrene of a portion of cellular membrane, the skin over it remaining sound at first, but gradually inflaming and ulcerating, and permitting the membrane to separate. It generally gets well, except upon the head and neck, where it is commonly fatal from effusion upon the brain. It is to be treated by making at an early period of the disease, a large crucial incision over the swelling, and applying the usual remedies for gangrene.

Erysipelas, from its tendency to produce gangrene, is here

introduced. It is generally a constitutional disease, and is not to be confounded with common inflammation of the skin. It is characterized by a florid skin, with vesicles containing an amber-coloured secretion. It is seldom that the skin suppurates, but the cellular membrane sometimes does. It occurs very often upon the head, from very slight causes, and is generally fatal when seated there. It generally appears in spring and autumn, but rarely in winter, and not often in summer. Whatever renders the body irritable, predisposes to erysipelas. Calomel is to be first given, and the liquor ammoniæ acet. with antimony, and then the sulphate of quinine. Dr Marcket found upon comparing two cases, one of which was treated with tonics and a generous diet, the other with the strict antiphlogistic regimen and low diet, that the former recovered the most rapidly. Where erysipelas attacks intemperate persons, it is recommended that, in the debility consequent on the first stage, ardent spirits, wine, and porter, should be allowed them.

The local treatment consists in the application of camphorated spirit of wine, in the first stages; and when the vesications are either about to break, or have broken, in the application of powdered starch. Fomentations and poultices are bad. When gangrene occurs it is to be treated as in ordinary cases.

Mr Tyrrell adds, in a note, an account of another form of inflammation which he denominates cellular.

‘ There is another form of inflammation, which I shall term *cellular*, as it appears to be principally situated in that texture. I mention it here, as it is sometimes confounded with true erysipelas, and because it so frequently terminates in gangrene. It is usually situated in the extremities, and is often produced from very trifling injury. I have seen five cases within these last two years in which it arose from slight injury to the elbow, occasioned by the persons falling on the olecranon.

Shortly after the accident, pain is experienced at the wound, and the surrounding parts become swelled, from effusion into the cellular tissue, but the integument is scarcely discoloured; this swelling extends gradually, so as to cover the whole of the extremity in a few days. Constitutional symptoms now arise, the patient is restless, anxious, and has occasional rigors, succeeded by heat; the skin becomes partially discoloured, and on these parts vesicles are formed, which burst, and expose gangrenous spots beneath: when these spots separate, the cellular tissue is found also to be gangrenous, not only the portion thus exposed, but that likewise which is situated to a considerable extent beneath the surrounding integument. By the subsequent separation of this substance the connexion between the integuments and subjacent fasciæ, muscles, &c. is destroyed; and I have thus seen nearly the whole of the integument of the upper arm disunited from the parts beneath.

‘ This form of inflammation differs from the true erysipelatous in the following particulars: The integument is not at first affected, nor does it ever assume the florid colour which attends erysipelas: the constitutional symptoms do not precede the inflammation, but appear to be consequent on the local affection; it also always terminates in gangrene of some portion of the cellular tissue.

‘ The constitutional treatment is much the same as that required in erysipelas; but the local applications should be employed with a view to promote the suppurative process (unless the inflammation be quite incipient.) For this purpose fomentations and poultices are proper.

‘ If the separation of cellular tissue has been extensive, great care must be taken to keep the disunited integument in contact with the subjacent parts, otherwise it will be very likely to slough: to effect this I have usually employed strips of the soap cerate plaster, which are applied so as to leave some of the openings uncovered, to allow of a passage for the discharge, until the desired union has taken place.’ pp. 189, 190.

The next Lecture begins the consideration of particular surgical subjects. We have not room, at present, or any further analysis, but may resume it hereafter; and in the meantime renew our recommendation of this work as one of the most valuable systems of surgical practice probably in existence.

SELECTIONS.

Extracts from ‘Lectures and Observations in Medicine,’ By the late MATTHEW BAILLIE, M.D.

[From the London Medical and Physical Journal.]

WE should not have thought ourselves at liberty to insert any part of this volume without having obtained permission: this, however, has kindly been granted us. The *unpublished* writings of the late eminent Dr Baillie must naturally excite great interest; and we are happy that it is thus in our power to gratify our readers.—EDITORS.

The following papers are printed for private distribution among the friends of the late Dr Baillie, by his executors, in obedience to directions left in the following codicil to his will; dated Cavendish-square, Dec. 27, 1821:—

‘I wish my two Introductory Lectures to the course of Anatomy which I give in Great Windmill-street, my Lectures upon the Nervous System, read before the College of Physicians, and a short account of my experience in the Practice of Medicine, to be *printed*, but not *published*. One hundred and fifty copies may be printed, of which one copy may be given to each of my more intimate medical friends, and the remainder to the Royal College of Physicians in London. They are hardly of sufficient importance to be published, and yet I am unwilling they should be completely lost, as something useful may be extracted from them. They will form together a small octavo volume.’

Some brief Observations drawn from my own experience upon a considerable number of Diseases.

I have now practised as a physician for more than thirty years, and have, for the greater part of that time, been so much occupied with visiting patients, that I have seldom been able to write notes of individual cases. It has occurred to me, however, that some advantages might be derived from my leaving a short record of the results of my experience in a considerable number of diseases.

I am convinced that the most successful treatment of patients will depend upon the exertion of sagacity or good common sense, guided by a competent professional knowledge; and not by following strictly the rules of practice laid down in books, even by men of the greatest talent and experience. It is very seldom that diseases are found pure and unmixed, as they are commonly described by authors; and there is almost an endless variety of constitutions. The treatment must be adapted to this mixture and variety, in order to be as successful as circumstances will permit; and this allows of a very wide field for the exercise of good common sense on the part of the physician. A physician who should be guided strictly by the rules laid down in books, would be a very bad practitioner. In the following short observations on the treatment of various diseases, I shall state impartially the result of my experience, without entering into any speculative reasoning, which is often very fallacious.

Complaints of the Head.

Many persons of both sexes are affected daily with headaches, of more or less severity, for many months, and often for some years. They chiefly prevail towards the middle

time of life, but occur often at an earlier period. They may take place in any part of the head, but are more commonly felt in the forehead, or over one eye, or in the back part of the head. Such headaches I have found in general to be very little benefited by bleeding, either general or topical. In the accounts which patients have given me of the effect of this remedy, they have said that they have either received from it no benefit at all, or that it has lasted but a few hours; or that the headaches have even been worse after cupping, or the application of leeches. I have generally found such headaches to be most benefited by temperate living, great attention to avoid improper diet, purgative medicines, and bitters. The best common medicine is rhubarb and soap, in such doses as to give two motions daily. A few grains of calomel, with an aperient draught, such as an infusion of senna with a drachm or two of Epsom salts given occasionally,—as, for instance, once in a fortnight or three weeks,—are sometimes of much use. A due degree of exercise taken daily, both on foot and on horseback, is likewise in some cases very serviceable. Some headaches I have known relieved by nervous medicines, but not frequently. In some cases this complaint is relieved by no plan of medicine or management whatever, but will gradually, after some months or years, subside. The seat of such headaches is, I believe, in the scalp, and not in the inside of the cranium. They depend chiefly for their cause upon the state of the stomach and bowels, or upon an irritable state of some of the nerves of the scalp. In most headaches of severity, it is right to make one or two trials of the effect of topical bleeding; but not to persevere in the repetition of this measure for many months, as is often done, even though it produce no benefit.

The cutting the hair of the scalp very short, and the application of cold, by a large sponge wrung out of cold water and applied to the upper part of the head, will often give great temporary relief when the skin has been previously hot.

Apoplexy.—This disease, in its most severe form, depends commonly upon blood being poured out into the substance of the brain from some ruptured blood-vessel. This generally takes place in the medullary substance, near one of the lateral ventricles, but it may occur in any part of the brain. The milder forms of apoplexy depend upon a distention of some of the vessels of the brain, from an undue accumulation of blood in them. I have known, however, one instance of fatal apoplexy where many of the blood-vessels were found, upon ex-

amination after death, to be much distended with blood, but no blood had been extravasated in any part of the brain.

The chief remedy in apoplexy is large bleeding, to be repeated according to circumstances. Topical bleeding by cupping and leeches is likewise often of use. The next remedies of importance are purgative medicines of considerable power, and acrid glysters. The head should be kept high or elevated, and cold may be applied with advantage to the top of the head. If the patient should recover by these means, the best plan of management, in order to escape from another attack, is to live almost entirely throughout future life upon vegetable food, and to abstain from wine, spirits, and malt liquor. It will be of considerable advantage to avoid any strong or long-continued exertion of the mind. In a few instances, when the full state of the vessels of the brain had for some time subsided, I have derived considerable advantage from the moderate use of tonic medicines, and more especially of steel.

Hydrocephalus.—I have known in my own experience but one instance of this disease being cured, when fully formed. In this case all the symptoms were well marked, and the disease had made such progress that squinting and an irregular pulse had taken place. There had been no peculiar treatment, except that mercurial ointment was applied daily to a considerable sore on the upper part of the head, which had been produced there by a blister. The individual is now alive, and is a young lady of good talents, which she has highly cultivated.

I have seen a few cases, in which there appeared to be a strong threatening of hydrocephalus, that got well by the application of leeches and blisters to the head, and brisk mercurial purges; but I cannot determine whether these cases, if less actively treated, would have terminated in true hydrocephalus or not.

Epilepsy.—This disease appears to me to have become much more frequent within the last twenty years than formerly. If this remark be generally true, it may perhaps be accounted for by the progress of luxury, which must render the nervous system more irritable. I have known very few instances of epilepsy radically cured; but a considerable number of cases in which the intervals between the attacks have been rendered much longer. The medicines which have appeared to me to have most influence in removing or retarding the attacks of epilepsy have been the *argentum nitratum*, *viscus quercinus*, and the *oleum succini*. Of these, the first is the most powerful; but, when it has been used for a good many months, it

tinges the skin of some individuals of a dark colour. I have known two instances of this effect from it in my own experience. The bowels, too, should always be kept open, and the effect of brisk purgatives should be tried in the beginning of the disease.

It is of great use, in the treatment of epilepsy, that the patient should live very temperately, and should avoid every thing which may tend suddenly to excite or to harass the mind. Patients should eat animal food sparingly, and should abstain from wine, ale, and porter altogether. The hair should be cut short, and cold applications should be applied to the head whenever the skin of it feels hot. This management is often of much use in rendering the attacks both less frequent and less violent. The causes producing epilepsy are various; but I believe that in this disease there is constantly a tendency to a greater accumulation of blood than is natural in the vessels of the brain.

• *The Tic Douloureux.*—The tic douloureux seems to me likewise to have become more common of late years, and I think it is more frequent among men than women. I do not recollect to have seen any instance in which it has been permanently cured, either by internal medicines or by an operation. I have known some instances of its being cured for a time (that is, for several months, or even a year,) by medicines; and those which have appeared to me of most use are Peruvian bark and arsenic. The operation of dividing the nerve has in some instances prevented a return of the disease for one or two years, but has not, as far as I know, prevented it permanently. The courage and patience under suffering in this complaint, displayed by some individuals, have been truly astonishing.

[*To be continued.*]

INTELLIGENCE.

Massachusetts General Hospital.—George Hayward, M.D. has been appointed Assistant Surgeon of this institution.

Boylston Medical Society.—The annual premium of this Society, established by the generous patron of Medical Science, whose name it bears, was awarded the present year to Dr Ralph Farnsworth.

Table of the Diseases, Casualties, &c. within the City of London and Bills of Mortality, from December 14, 1824, to December 13, 1825; according to the Reports made to the King and to the Lord Mayor, by the Company of Parish Clerks.

DISEASES.

Abscess	89	Fever (Typhus)	86	Palpitation of the Heart	2
Age and Debility . .	1528	Fever Intermittent, or Ague	1	Palsy	116
Apoplexy	317	Fistula	5	Paralytic	35
Asthma	816	Flux	10	Pleurisy	8
Bedridden	2	Gout	26	Rheumatism	19
Bile	6	Hæmorrhage	31	Scrofula	10
Cancer	95	Hernia	20	Small-pox	1299
Consumption . . .	5062	Hooping-cough	420	Sore Throat or Quinsy	15
Convulsions . . .	2662	Hydrophobia	4	Spasm	53
Croup	82	Inflammation	2196	Still-born	904
Diarrœa	8	Inflammation of the Liver	130	Stone	20
Dropsy	313	Insanity	198	Stoppage in the Stomach	21
Dropsy in the Brain . .	751	Jaundice	27	Suddenly	125
Dropsy in the Chest .	65	Jaw-locked	2	Teething	408
Dysentery	5	Lethargy	1	Thrush	59
Enlargement of the Heart . .	12	Livergrown	3	Tumor	7
Epilepsy	40	Measles	743	Venereal	5
Eruptive Diseases .	10	Miscarriage	1		
Erysipelas	20	Mortification	279	Total of Diseases	20,672
Fever	809				

CASUALTIES.

Broken Heart	2	Frighted	2	Shot	1
Broken Limbs	1	Killed by Falls and several other Acci-	2	Stabbed	1
Burnt	36	ments	95	Strangled	1
Choked	1	Killed by Fighting	1	Suffocated	3
Drowned	139	Murdered	1	Suicides	42
Excessive Drinking .	3	Poisoned	5	Total of Casualties	354
Executed*	4	Scalded	5		
Found Dead	11				

CHRISTENED.

Males	12,915	In all, 25,634	Males	10,825	In all, 21,026
Females	12,719		Females	10,201	

Whereof have died,

Under Two Years of age	6419	Fifty and Sixty	1746
Between Two and Five	2061	Sixty and Seventy	1740
Five and Ten	867	Seventy and Eighty	1568
Ten and Twenty	877	Eighty and Ninety	622
Twenty and Thirty	1485	Ninety and a Hundred	72
Thirty and Forty	1698	A hundred	1
Forty and Fifty	1831	A hundred and One	1

Increased in the Burials this Year, 1781.

* There have been executed within the Bills of Mortality, 15; only 4 have been reported as such.

BILL OF MORTALITY FOR THE CITY OF BOSTON, for 1824.

The number of deaths above, include those in the Alms-House, and the City Poor, and were occasioned as follows:—

Abscess	9	Complaint of the Heart	4	Drinking cold water	2	Fever, Bilious	7	Scrofula	7
Accidental	9	Complication of disorders	2	Dropsey	12	" Puerperal	2	Spasms	9
Apoplexy	9	Complaint of the Bowels	2	" of the Head	33	" Putrid	4	Stillborn	91
Asthma	2	Consumption	24	" of the Chest	14	" Spotted	1	Strangulated Hernia	7
Atrophy	9	Croup	3	Drowned	18	Fits	7	Strangury	7
Bilious Colic	2	Debility	11	Dysentery	45	Fungus	2	Sudden	5
Bleeding at the lungs	2	Decay of Nature	4	Enlarged Spine	1	Gout	2	Old Age	1
Burns	6	Decline	4	Epilepsy	2	Gravel	1	Ossification	1
Cancerous Humour	3	Delirium Tremens	4	Fever	1	Palsy	1	Suicide	1
Canker	18	Diarrhoea	24	Hepatico Gasteritis	1	Suffocation	12	Syphilis	13
Canker in the Bowels	2	Diseases unknown	195	Hooping Cough	1	"	2	Teething	10
Carbuncle	1	Infantile	32	Lung	1	"	4	Tetanus	92
Chicken Pox	1	Disorder of the Mesenteric Glands	7	Nervous	1	"	11	White Swelling	1
Cholera Morbus	1	Disorder of the Kidneys	4	Quiney	1	"	12	Worms	1
Cholera Infantum	11	Disorder of the Stomach	46	Rheumatism	3	"	1	Salt Rheum	1

N. B. There were also three deaths of Yellow Fever and two of Small-pox, in the Hospital, Bainsford Island

LIST OF NEW PUBLICATIONS.

AMERICAN WORKS.

The Characteristics of Homœopathy. From Hahnemann's 'Geist der Homœopathischen Heil-Lehre.' By H. B. Gram, C.M.L. 8vo. pp. 24. New-York: J. & J. Harper.

Observations on the Autumnal Fevers of Savannah. By W. C. Daniel, M.D. 8vo. Savannah.

The Institutes and Practice of Surgery; being the Outlines of a Course of Lectures. By William Gibson, M.D. Professor of Surgery, &c. Vol. II. Edward Parker: Philadelphia. 1825.

Memoir on Acupuncture; embracing a series of cases, drawn up under the inspection of M. Jules Cloquet. By M. Morand, M.D. Translated from the French by Franklin Bache, M.D. Robert Desilver: Wall-Street, No. 110, Philadelphia. pp. 87.

The Medical Formulary; being a collection of Prescriptions, derived from the writings and practice of many of the most eminent physicians in Europe and America. To which is added, an Appendix, containing the usual dietetic preparations, and antidotes for poison. The whole accompanied by a few brief pharmaceutic and medical observations. By Benjamin Ellis, M.D. Lecturer on Pharmacy. Philadelphia: Carey & Lea. 1825. pp. 148.

Professional Reputation; an Oration delivered before the Philadelphia Medical Society, pursuant to appointment, Feb. 8, 1826. By John D. Godman, M.D. Lecturer on Anatomy and Physiology. 8vo. Philadelphia: B. & J. Kite.

A Vindication of the Thomsonian System of the Practice of Medicine on Botanical Principles, as originated by Samuel Thompson, and continued by his co-adjudicators. By John Thompson. 8vo. Albany, N.Y. pp. 74.

An Introductory Lecture delivered in the College of Physicians and Surgeons, at the opening of the winter Session, on the 7th of November, 1825. By David Hosack, M.D. Professor of the Theory and Practice of Physic, &c.

The North American Medical and Surgical Journal, No. 1. Philadelphia. pp. 244. Published Quarterly.

Journal of the Philadelphia College of Pharmacy, No. 1. For December, 1825.

FOREIGN WORKS.

A Treatise on the Diseases of the Eye; including the Doctrines and Practice of the most eminent modern Surgeons, and particularly those of Professor Beer. By George Frick, M.D. Ophthalmic Surgeon to the Baltimore General Dispensary. A new Edition with Notes. By Richard Melbank, Member of the Royal College of Surgeons, and of the Medical and Chirurgical Society of London. 8vo. pp. 312. Anderson, London. 1826.

An Essay on the Application of the Lunar Caustic, in the Cure of certain Wounds and Ulcers. By John Higginbottom, Nottingham, Member of the Royal College of Surgeons of London. 8vo. pp. 147. Longman, London. 1826.

A Toxicological Chart; exhibiting at one view the Symptoms, Treatment, and Modes of Detecting the various Poisons, Mineral, Vegetable, and Animal: to which are added, Concise Directions for the Treatment of Suspended Animation. By William Stowe, Member of the London College of Surgeons. London.

Researches into the Nature and Treatment of Disease in the Brain, Chest, Abdomen, Ovarium, and Skin; in which a more correct and consistent Pathology of these Diseases is attempted to be Established, and a New and more Successful Method of Treating them, Recommended and Explained. By Joseph Ayre, M.D. Member of the College of Physicians, &c. London, 1825.

The Anatomy of the Foetal Brain; with a Comparative Exposition of its Structure in Animals. By Frédéric Tiedemann, Professor in the University of Heidelberg, Member of the Academy of Sciences of Munich and Berlin, &c. &c. Translated from the French of A. J. L. Jourdan, by William Bennett, M.D. To which are added, some late Observations on the Influence of the Sanguineous System

over the Development of the Nervous System in general. Illustrated by 14 Engravings. Edinburgh, 1826.

Further Observations on the Medicinal Leech; including a Reprint, from the Philosophical Transactions, of Two Memoirs, comprising Observations on the *Hi-rudo Vulgaris*, or Common Rivulet Leech; and on the *H. Stagnalis* and *H. Complanata*, now constituting the Genus *Glossopora*. With illustrative Engravings. By James Rawlins Johnson, M.D. F.R.S. F.L.S. London, 1825.

Remarks on some parts of Mr. Calvert's Treatise on Diseases of the Rectum; namely, Hæmorrhoids, Simple Stricture, and Spasmodic Constriction of the Sphincter Ani. By W. White, Member of the Royal College of Surgeons, London. Bath, 1825.

Guilielmi Harveyi Exercitationes de Motu Cordis et Sanguinis; quas Notis pauculis instruendas curavit Thomas Hingston, M.D., Societatis Regiae Medicæ Edinburgensis Socius, nunc ex Collegio Reginæ Cantabrigiensi. Edinburgi, 1824.

A Letter to Astley Cooper, Bart. F.R.S., Surgeon to the King, &c. &c., on certain Proceedings connected with the Establishment of an Anatomical and Surgical School, at Guy's Hospital. By J. H. Green, F.R.S. Surgeon to St. Thomas's Hospital. London, 1825.

Report of the Physician, laid before the General Court of the Hospital for Casual Small-Pox and Vaccination, at St. Pancras; held December 1, 1825. London, 1826.

De Gastromalacia et Gastropathia Infantum. Auctore F. X. Ramisch. Prague, 1824.

Anatomie du Cerveau dans les quatre Classes d'Animaux Vertebrés, comparée especialement a celle du Cerveau de l'Homme. Par Laurencet, de Lyon; avec Planches. Paris, 1825.

Manuel du Pharmacien; ou, Precis Elementaire de Pharmacie, par A. Chevalier, &c. &c. et par P. Sat, de Lyon. Tom. I. et II. Paris, 1825.

Summer Course of Lectures on Midwifery.

Dr CHANNING will deliver a course of LECTURES ON MIDWIFERY the ensuing summer, in the Massachusetts Medical College, to his class of private pupils. The first Lecture will be given on the third Wednesday of May (17th) at 12 o'clock. Other medical students may be admitted to the above Lectures on terms which may be known by applying to Dr Channing, Common-Street.

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' Bills of Mortality.'

By WALTER CHANNING, JR. M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

BILLS of mortality are of pretty recent date in this place. About sixteen years ago it was provided, that, after permission for burial, or before, as the case might be, returns should be made by the undertakers to the superintendent of burials, of the diseases, ages, and sexes of the deceased. Up to this period, no distinct provision existed here on this subject, and interments were made for the most part, without any notice having been given of the disease which had preceded the death. Notwithstanding the existing regulations, very little useful information is obtained from our bills of mortality. I speak particularly in regard to the diseases which have been the causes of death. They contain little else that may be depended on, than the number of those who may have died within a given time, and the sexes. Something may be learnt of the ages, to be sure, but this is not so precise as it might easily be.

Our bills of mortality are of recent date. This is not to be regretted. Custom has not so far fixed them in their present form that change would be difficult to make. They have excited very little notice; and it is only once a year, when they are made public, that the physician feels called upon to express his regret at their imperfection and general incorrectness, without at all feeling at the same time that it is in any measure his duty to attempt to make them better. I am led to make these remarks from some small attention to the history of Bills of

Mortality in England. It is quite curious to observe how much the character of these Bills has been continued from their first institution down to the present time. It is not, however, that efforts have been wanting to make them better and more useful, that they still remain so very imperfect, or that very able men in the profession have not given their time to this subject.

Bills of mortality were instituted in London in 1592. The plague raged at that time in that city, and it was for the purpose of recording the progress, diffusion, and decline of that malady that they were instituted. With the disappearance of the disease the Bills ceased, but they were kept again in 1603, when the plague re-appeared. It was at this time too, that by an ordinance of King James, weekly bills were established, and have not since been interrupted. 'In 1606 the number of christenings, as well as that of burials, appeared in the returns; and although diseases and casualties were recorded as early as 1604, no public notice was made of either before the year 1629, when another important improvement took place—that of distinguishing between the sexes.'* The ages were specified in 1728. Since this time no changes have been made. It would seem from this hasty sketch, that the measures taken for ascertaining the comparative mortality of different years, were sufficient for this end. There was, however, a provision in the institution which has, in a great measure, destroyed its usefulness. This provision regards the persons who are appointed to manage the returns. The following extract from the work just quoted, contains an important item in the history of the London Bills. 'The collating, printing, and publishing these documents, as far as they relate to the metropolis, are placed under the superintendence and jurisdiction of the ancient corporation of parish clerks: [incorporated by letters patent of the 17th Henry III., in 1239, by the style of the 'Fraternity of Saint Nicholas,] a power which, it is hardly necessary to observe, is wholly inadequate to the accomplishment of the medical, political, and moral objects which these bills are calculated to promote. As to the nature of the diseases of which persons die, much error must necessarily arise from the absurd manner in which the investigation is conducted, as the following statement will clearly demonstrate.—The churchwardens of each parish within the bills of mortality, appoint two old women to the office of *Searchers*, who, on hearing the knell of the dead, repair to the sexton of the parish, to learn the name and residence of the deceased. They demand admittance into the

* *Vid. Medical Jurisprudence.* By J. A. Paris, M.D. &c. and J. S. M. Fonblanche, Esq. Barrister at Law. & vol. p. 143.

house to examine the body, in order that they may see that there is nothing suspicious about it, and judge of what disease the person died, which they report to the parish clerk. The regular charge for the performance of this office is *fourpence* to each *searcher*; but if an extra gratuity be tendered, they seldom trouble the domestics with any examination.*

The above is taken from a work of recent date, and of much authority. There can hardly be conceived a more absurd mode of procedure, and yet this method of obtaining what is regarded as important information, has continued in operation from 1603 to this day, and in a country distinguished for its zeal in all good science, and for the adoption of all the best means of valuable information. Even the old names of diseases continue to be employed, and the profession are still treated with such terms as these: *Head mold shot*; *horseshoe head*; *overgrown head*; *rising of the lights*; *livergrown*; *twisting of the guts*; *chrysoms*, (*children dying before baptism*,) &c. &c.; a nosological nomenclature in admirable harmony with the knowledge and refinement of those who employ it. Now, it is not that this subject has not attracted the attention of able men, that this abuse still continues. Dr Heberden has written upon it in the Philosophical Transactions; and Dr Burrows, a very competent person to treat it, has recently written a volume upon the subject. In some parts of England, physicians have taken this business into their own hands, and very useful bills have been published by them. Such are those of Chester, by Dr Haygarth; of York, by Dr White; and Dr Price computed his celebrated tables of the probabilities of life from the Northampton bills. The London Bills furnish a very imperfect comparative view of the deaths and births, but, as far as they can be depended upon, it seems pretty certain that the health of that city is very superior to what it was in the seventeenth century. This, in its connections with the increase of population, seems the amount of the information they contain.*

I shall, in the next place, speak of the objects of these Bills, and inquire if they are not of sufficient importance to obtain for them a better interest than they have hitherto excited

* Those who are curious to consult the bills of York, &c. above referred to, and Dr Price's paper, will find them in the following volumes of the Philosophical Transactions:— Volumes 64, p. 67; 65, p. 85; 68, p. 131; 72, p. 35; and Thompson's History of the Royal Society, article Political Arithmetic, p. 530.

See also, for much curious information, Observations on the Increase and Decrease of different Diseases, and particularly of the plague. By William Heberden, M.D. Stowe's London, book 5, p. 448; Morris's Observations on the past growth and present state of the city of London; Jameson on the changes of the human body, 8vo. London, 1812.

amongst us. Among these objects have been enumerated the following:

1. *The causes of many diseases, and their affinity to one another.*
2. *The rise, situation, increase, decrease, and cessation of epidemic and contagious diseases.*
3. *The means of guarding against their extension and effects.*
4. *The comparative healthiness of different countries and places, climates and seasons.*
5. *The influence of particular trades and manufactures on the human constitution.*
6. *The difference of mortality in the sexes, and comparative views of the diseases which have been fatal in each.*
7. *The increase of longevity, and the diseases and seasons which have been most fatal in the aged.*
8. *The increase or diminution of intemperance, as shown by deaths from intemperance.*

These are among the objects contemplated by these bills, and it will be perceived that they relate to very important questions in political economy, medicine, and morals. It is with a view to bring this subject fairly before the profession and the public, that the writer of this paper has been disposed to hazard some remarks on the means of accomplishing these objects, or some of them; and in order to render this attempt more useful, some of the difficulties which belong to the subject will be first pointed out.

The first, and in truth the great obstacle in the way of uniform and correct Bills of Mortality, is the real uncertainty which exists in regard to the true nature or precise species of a disease which has proved fatal. A physician will always form to himself notions more or less precise on every case which comes before him. Particularly will this be the case, in the majority of instances, of diseases which threaten a fatal termination. He must have his mind occupied about something as a cause for the phenomena he is daily observing, and for the removal of which he is employing the multiplied means of his art. No thinking man can proceed for a moment in the management of a case, whose mind is not more or less occupied in the way now stated. But let the patient die, and now let the physician be asked to give a name which shall precisely indicate the character and seat of the disease, as well as embrace the leading phenomena, or contain what the disease has been, and he will at once have a mass of questions to settle, of which he before hardly dreamed. Even suppose that he is enlightened by morbid anatomy, and has attempted to correct his previous views, or to establish them, by what

this may discover, still he may doubt, not what the disease has been, but by what name it will be most correctly designated. This embarrassment has been felt by the best minds in the profession, and it presents itself as a paramount difficulty in any attempt to render these Bills entirely correct. The ordinary method of getting over the difficulty is to make such an approximation to the truth, as is made by selecting some one, and that a leading phenomenon as a guide, and naming the disease from that, or by using a term so very general, that, while it saves the conscience, it leaves the subject to be decided as it may best suit the views of the reader. This difficulty is the great one to our object, and it deserves to be stated very precisely; for it is by doing so we may hope that approximations to correctness will become nearer and nearer. Men are diffident sometimes in proportion as they are uncertain; and it would be much better to leave the name of a disease unsettled, than to make a record which shall mislead.

There is another source of embarrassment and difficulty which it is of much consequence to remove. This is found in the diversity of names employed by physicians for similar diseases. This leads to much embarrassment. One man means by one name more than another, and a second a very different thing. The term *consumption* is an example, and from its commonness is a good one. We find this not unfrequently in the same bill with *phthisis pulmonalis*, with *decay*, with *marasmus*, &c. Now, some physicians always mean tubercular phthisis by this term; others, hectic, from almost whatever cause, and some even when hectic is the effect of suppuration in parts altogether remote and distinct from the viscera.

Death from intemperance, an occurrence by no means rare, is very frequently reported incorrectly from the different terms employed to express it. Thus, some physicians use the terms *delirium tremens* to designate the disease in this case, while others call it *brain fever*. Now, these last will call inflammation of the brain, brain fever, as well as the delirium of drunkards, while others will restrict it to the first disease. In one case which has come to my knowledge from the best authority, *delirium tremens* was returned as the cause of death; but when the officer who received the report remarked casually to the physician who had attended the case, that the deceased had died of intemperance, 'Oh, no,' said the latter, 'I did not mean to say that by my report.' Now, here is a source of confusion and embarrassment which should not occur. Bills of mortality have been said to be intended for a moral, as well as for political and medical purposes; and although they may

have some effect to diminish intemperance when honestly made, this is entirely defeated, if a mistaken delicacy leads us to mis-state an important fact in our returns to the Health Office. These cases should be returned fairly. No embarrassment exists here as to the cause of death. The disease declares itself without confession of party; and the public ought to be informed fully of the disease and of its causes. This, among others, has been referred to a great question of professional morality; how far the physician is bound by any duty to the public to divulge knowledge which he has acquired by his intercourse with the sick. I am not to settle this question. But I will say decidedly, if this disease from intemperance is not to be reported truly, it will be much better for our bills, and the public, that these deaths be reported from *causes unknown*. There is a dishonesty in this, but it is the least which the case allows; the public, if deceived, are not misinformed. One is hardly aware of the confusion which this negligence of language produces. It is not reputable to a profession to allow its public and most permanent records to be thus made. They are not merely useless, but affect and seriously injure some of the most important reasonings which, as a public institution, that profession may be called on to make.

These difficulties do not apply to all cases. Epidemics, for example, furnish an exception. There was, indeed, a period in the history of these mysterious diseases, in which one of their wisest observers and historians acknowledged that on the appearance of what seemed a new epidemic, it was hardly possible not to lose some patients before the disease, or its treatment, were understood. But after these were ascertained, the epidemic was readily recognized in the new cases which occurred. At this day, these diseases are soon recognized at least, however diverse their treatment may be. Ordinary care only need be taken to make reports of them as correct as the case can require. It is in reporting other diseases embarrassments most frequently occur. It is these too which are of most frequent occurrence, and about which it is very desirable that the information given should be correct.

Some circumstances have now been referred to which contribute to diminish the value of our bills of mortality. Others are at hand and deserve to be named. Physicians in this place are, in no measure, responsible for their accuracy. They have, to be sure, been solicited again and again to give to this subject the attention which we all acknowledge it to deserve. The very respectable and zealous city officer, who is at the head of that branch of a well regulated medical police, the duty of

which is to prepare and publish bills of mortality, has made personal and written applications, again and again, to the profession for their assistance. Quite recently a printed card has been addressed, in the form of a request, to each of our physicians, containing very simple and precise directions, in what manner returns should be made to his office. The trouble to each individual would be exceedingly small, were this request literally complied with. Very little attention, however, has been paid to it. Another source of error may be found in the fact that the returns, such as are now made by the undertakers, are not necessarily submitted to any medical man for revision before publication. At least, there is no medical officer, whose official duty it is to correct the nomenclature, or arrange the diseases in the annual reports.

The present Bills, at least those of London, notwithstanding their various sources of error, have been regarded with some interest by various writers. I have before me some remarks on this subject by Dr Heberden, a great name in medicine, which deserve attention. Dr Heberden says, 'People have fallen into two opposite errors concerning the Bills of Mortality; some have considered their authority as too vague to be made the foundation of any certain conclusions; and others have built upon this foundation, without sufficiently considering its real defects. Both parties are equally wrong. The agreement of the bills with each other does alone carry with it a strong proof that the numbers under the several articles are by no means set down at random, but must be taken from the uniform operation of some permanent cause. While the gradual changes they exhibit, in particular diseases, correspond to the alterations which in time are known to take place in the channels through which the great stream of mortality is constantly flowing. That there are, however, many, and very great imperfections in these bills, cannot be doubted,'* &c.

If the above be regarded as a defence of the London bills, we could hardly recommend them for imitation; Dr Heberden acknowledges they have great imperfections, and the main argument he advances in their support is their agreement with each other. Now this coincidence might be explained upon very different grounds from an actual correspondence among the facts, of which these bills are designed to contain and preserve a record.

The most difficult task remains. It would be an useless la-

* Observations on the increase and decrease of different diseases, and particularly of the plague. London, 1801.

bour to point out the imperfections of a system, with some of their causes, without proposing something to diminish or remove them. In the present case, it would seem of primary importance to secure for the subject the careful attention of those, who, if not most interested in it, are certainly the best fitted to attend to it. The materials for these bills must be obtained from physicians. Their whole management, therefore, should devolve on them. And as a primary question, it may be asked, how this may be made a duty upon terms which shall be the most easy, and still secure to it a sufficient responsibility. In some of our cities, (in one at least) I have understood it is made the duty of the attending physician to leave at the house of the deceased a paper, containing the name of the disease, and signed by his own name; or, in case of this being neglected, one of the undertaker's first duties, upon being summoned to the house, is to call upon the physician, and to procure this statement from him. This is required before permission can be obtained for burial. This is certainly not a very difficult duty, and if the physician has any distinct notions of the benefit of these Bills to the community, all the responsibility is secured to it that can be asked. We are met here with the first difficulty above enumerated in the way of giving a name to the disease, viz. the uncertainty which may exist as to what it truly was. In this case the physician is fully authorized to give a name derived from some leading symptom; a symptom which was early noticed, and which has continued most prominent during the progress of the complaint. It will not unfrequently happen, that in a serious malady, particularly if it have become chronic, that the earliest symptoms, though depending on a peculiar cause, were not its appropriate and ordinary phenomena, and an important mistake in the diagnosis will have been committed. But even here we shall have, in the course of the disease, some predominant, or, at least, peculiar symptom for which a name may be given, which will sufficiently well indicate the disease. Where, however, it is altogether a matter of uncertainty, and an examination of the body is not allowed, or, being made, it furnishes nothing satisfactory, it is infinitely better to leave the cause of death, or the disease without a name in the Bills, than to make a report which has no better authority for itself than an obscure guess. It is no matter how large a number of deaths are reported from *causes or diseases unknown*, if no useful knowledge has been obtained concerning them. A physician need not fear for his reputation from such a procedure, if he has been diligent in the use of all the means of knowledge which the case has presented. He will, at least,

have a popular prejudice on his side, and a fair statement of his doubts, where such exist, will give new and better authority to what he confidently records.

The variety of names used by different physicians for the same disease, was mentioned as a second cause of confusion and incorrectness in bills of mortality as now made up. This can be obviated in one way, and this a very simple one. Let the physicians of a place agree to use any one system of nosology, and the nomenclature of these bills necessarily becomes uniform. There may be errors indeed, but one great source of embarrassment will be removed. The profession have pretty lately been presented with a system of nosology, which seems destined to take the place of those which have preceded it. I refer to that of Dr Good. This is getting more and more in use amongst us. It is adopted by the Professor on the Theory and Practice in the University; and there is good reason to believe, that it will in time be generally used. It has many recommendations. Its classification is a strictly natural one; and if it be not a perfect system, which, indeed, it does not profess to be, it has fewer imperfections than those which preceded it. It is the basis of the greater work, the Study of Medicine, and this fact in its history will ensure it a careful study. An objection may be brought to this system, on account of the new terms introduced by the author in the place of older ones. This is no valid objection, if the new ones are better. There is one fact which renders this probable; the high literary attainments of Dr Good. Perhaps no physician has brought to his favourite study so much profound learning; and learning of the very character to furnish the best assistance in the formation of scientific language, a philosophical and technical nomenclature. In order that this system should get into extensive use, I know of no better method, than that some one perfectly acquainted with it should give a few gratuitous lectures upon it. This has been already proposed, I have been informed, to one perfectly qualified for this task, and it is to be seriously wished that he will be induced to give this important instruction.

Our Bills of Mortality are published annually. Suppose returns to be regularly made at the Health Office, and that they are made by the physicians of the deceased, and signed by them; it certainly would not be a difficult task for some one physician, if attached to that office, and for such purpose, to prepare them for publication. Would it impose too great a task on the physician to the Port to revise these Bills as a part of his official duty? Would it not be well, then, for physicians

to be required to furnish the undertaker, in some way, with the name of the disease which they believe caused death, and that such a certificate should be exhibited before permission be granted for burial? And would it not contribute much to the correctness and utility of our Bills, to have them prepared by a physician appointed for that purpose? These questions are proposed, not from a belief that the methods suggested are all, or the best. The object of this paper is to bring distinctly before the profession an important object, not to supply the defects of the system by which it has been pursued.

Before closing this paper, I would suggest that a slight addition be made to our Bills, particularly if they are not to undergo any radical change. There are two classes of diseases sufficiently distinct from each other, to form independent and very useful divisions; I mean the classes of *acute* and *chronic* diseases. These may be added with very little trouble, and the information thus conveyed would be very interesting to the profession. They would be useful, even if they did no more than indicate the difference of time of diseases. They would of course be far more so, were the real circumstances which make the differences between the two classes strictly regarded.

Case of Pseudo-Tetanus.

By Dr MILO L. NORTH.

[Communicated for the New-England Journal of Medicine and Surgery.]

ON the 24th of September 1822, I was called to S. C. Burt, a middle-aged man and a labourer, who was affected in the following manner:—About ten times a minute, his head was drawn spasmodically and suddenly backward, attended with a simultaneous contraction of the thoracic and abdominal muscles. Said he had laboured hard the day previous, and went to bed as usual, with the exception of considerable pain in his foot from a stone bruise. This had been freely opened in the morning of the 24th, by Dr Hyde, of this town, but without any discharge of pus. The pain which was severe, was somewhat relieved, but the spasmodic affection of the neck continued. I saw him about 4 o'clock, P.M. in the absence of Dr H. He was sitting. Said he felt no pain nor permanent contraction in the muscles of the neck. Pulse and tongue natural. No apparent disease of the alimentary canal.

Between 4 and 9 o'clock, about 40 grains of the pulv. ipecac-

euanhæ comp. and about 25 grains of calomel were exhibited in divided doses. Besides this, the patient took half oz. tinct. opii and considerable æther. Towards 9 his spasms had become so violent as to shake the bedstead on which he lay, and his whole frame was convulsed: his head rapidly vibrated backwards and forwards about a foot, and the muscles of the thorax and abdomen were so affected as to produce the sound of barking.

I now became seriously alarmed for the safety of my patient. While a warm bath was preparing, I made a free incision into the suspected heel, and searched in vain for some offending substance. A common injection brought away a hard stool. A second one, containing 3ij sub. carbonat. potassæ procured two copious stools, the last one evidently the effect of the calomel. He now became quiet, and slept sweetly for fifteen minutes. On waking, he experienced some slight return of the spasm, when he was immersed in the warm bath. After this he slept quietly all night. Took once in four hours 5 grains calomel and 5 of the comp. powder of ipecac. Had two more copious stools before morning. He soon entirely recovered under the use of opiates and cathartics, and has never since experienced a similar attack.

Ellington, Con. March 28th, 1826.

On Blisters.
By WALTER CHANNING, Jr. M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

THE effects of the officinal preparations of the Spanish fly, (*cantharis vesicatoria*) when applied to the skin, are well known. These are first slight, but increasing redness; sense of smarting or burning; minute vesicles, formed by separation at various points, of cuticle from parts beneath, by effused fluid; these are of a light colour, distinct; then increase of vesicles, gradually becoming confluent; at last a single vesicle or bag, distended with a yellowish fluid, the fluid gravitating to depending part. The bladder at length bursts, or, being punctured, the whole fluid escapes, and the cuticle accurately covers the surface from which it has been raised. The part now dries, and the surface gradually regains its original colour and texture. Such are some of the more ordinary circumstances which attend vesication. It also happens that, instead of a number of minute vesicles, there is formed, in the

first instance a single one, which goes on to increase, and, at length, forms a bag of fluid which corresponds in extent with the size of the vesicating plaster. In some instances, the substance contained in the sac differs from the fluid above mentioned. Gelatinous, or albuminous matter, is effused along with, or in place of the serum; or coagulation of this last takes place. The blister in this case is firm, and yields but little fluid when punctured, and the shape and nearly the size of the tumour remains after puncture. Discharge, however, gradually occurs here as in the other case, and I have not observed any marked difference in time of healing, or in the circumstances which attend it.

Blisters, now and then, do not heal after the manner now described. Inflammation occurs and produces a most painful local disease. In some cases death is produced by it. This is a secondary inflammation, and it may be either common or peculiar. I use the latter term to distinguish one from the other, and in preference to specific, which implies something which does not belong to this case. An inflamed blister exhibits the following appearances:—The blistered surface is of an intense red colour. The cuticle which contained the water in an early stage of vesication, disappears entirely. A smooth, moist surface presents, with edges very strongly marked by the perfectly healthy skin which bounds it. Some fulness may be observed. Not that the inflamed part rises above the surrounding healthy parts, but a general fulness exists, in which the diseased and healthful parts partake. Swelling, however, is not very remarkable. The patient's sufferings are sometimes intense. An intolerable heat, with smarting and pricking pain is felt over the whole sore. The air can hardly be borne for an instant. The sensibility to an altered temperature, resembles that which the inflamed eye suffers from sudden exposure to light. All dressings are almost equally tormenting; and where children are the sufferers, the attempt to remove the dressings produces the strongest expressions of distress. I have seen this disease in adults and in children; and though the former can and do command the expression of their sufferings, they have uniformly spoken of the pain in the strongest terms. Pus begins very soon to form in these cases; but this does not bring much relief, or as much as in other cases of suppuration in other inflammations. The quantity of pus formed in some cases is excessive. I scarcely recollect any form of inflammation, in which the secretion is so great as in this under notice.

I have spoken of the local symptoms of inflamed blisters. Symptoms of general irritation, more or less severe, soon occur.

Now, if these be severe, the secretion of pus is diminished along with other secretions, and polished dry spots occur on the diseased surface. At times, there is an abatement in the local suffering when this happens; but, more commonly, the irritability and sensibility is increased, and the patient's sufferings are much augmented.

Secondary inflammation of blistered surfaces is commonly ascribed to cold. The local action of cold is here meant, such as happens from much exposure of the part while dressing it. This is not probably the cause. I have thought, in many cases, that it depended on the state of the system, and in some have been satisfied it did. In others, especially in young children, it has seemed to be produced directly by the powerful action of the blisters themselves. The severest case I have seen, and it was a fatal one, was referred entirely to this cause. In an exhausted state from disease, I have known blisters to produce much trouble and distress from becoming inflamed. The place selected for their application has appeared to have had some agency in producing these effects. Thus, blisters on the trunk, whether on the abdomen or the thorax, whether on the anterior part of the latter, or between the shoulders, have been followed by severer inflammation than on the extremities.

Exposure of the whole body to cold during convalescence, after blistering; to a cold air, for instance, while riding in a carriage, which has been followed by a chill; and a febrile state has, in one case, produced most severe inflammation of a blistered surface, and this too, where it was so near well, that farther dressing of the part had become unnecessary. In one case, this occurred accidentally twice. In the first instance, a very severe suppuration followed a renewed inflammation; and, in the second, mortification of a portion of the surface took place, which well nigh proved fatal.

Some have thought that secondary inflammation of blisters were, in some way, connected with the time the blister has been allowed to remain on the part. I have not thought so. It does not seem to me important, that blisters should remain on as long as some advise; but I have not thought that time alone has had any material agency in producing either excessive inflammation in the first instance, or a disposition to secondary inflammation afterwards. Some practitioners recommend them to be left on even after full vesication has taken place, and consider the blistering plaster the best dressing in the first instance. And why should time increase the inflammation? The direct effect of the plaster, as has been before stated, is to excite an action in the part to which it is applied, which ends

in an effusion of serum below the cuticle. In other words, inflammation is produced, and this is followed by effusion, as an immediate effect of a sufficient degree of this inflammation. Now, unless the action of the blistering plaster be so great, positively or relatively, as to produce in the first instance such an inflammation as will at once pass to gangrene, effusion will take place, and a natural cure for the time certainly be made of the inflammation. There may be states of system, in which fatal inflammation of the part may follow the action of a blister; or there may be something in the age of the patient, in either extremes of infancy or old age, or in that state which exists during high general inflammation, in which the ordinary action of a blister may produce the death of the part to which it is applied. But these are not the cases which are to settle the question of the length of time it would be best to permit a blister to remain on a part in the majority of cases, nor should we look to what occurs in them for an explanation of the occasional severe effects of blistering, in what seem appropriate cases. They are not at all proper cases, themselves, for such remedy, and therefore have no sort of relation to its ordinary use. I think, from what I have seen of the practice of others, and from what has been remarked to me, that I am in the habit of removing the plaster earlier than the majority of my brethren. I do not recollect a case, in which full vesication has failed to occur, where the plaster has been on a sufficient length of time to produce distinct redness, and incipient vesicles. Even when these have been very minute, and the plaster has been then removed, vesication has gone on as surely and as promptly after the removal of the plaster, and under a simple dressing, as where the former has been left undisturbed. Patients have preferred this mode to the more common one. They are less incommoded by the smell of the flies, which is peculiarly unpleasant to some individuals; and a light piece of linen, spread with a simple cerate, has been more comfortable than the heavy and stiff leather, on which the ointment of flies is ordinarily spread. I have not, however, pursued this practice from a belief, that keeping the plaster on a longer time, or till full vesication is produced, would be followed by a severer inflammation than takes place from the mode I have employed.

Blistering plaster has a very decided effect in some diseases, without producing any visible effect; and full vesication will follow its application, if for a couple of hours only, and even where no visible effects have been produced at the time of removal. These are quite interesting facts in the history of this

remedy. Odier, of Geneva, in his manual of practical medicine,* has availed himself of the first in the treatment of rheumatism. He found that, by merely allowing the plaster to remain on the part one hour, the pain was sensibly diminished, and this without redness or blistering. He applied the plaster again and again in the course of the day, to the same part, and assures us he was very well satisfied of its beneficial effects.

I have used blistering plaster in the same way. It has hardly failed of giving some relief, and in one case was curative. Has this mode been adopted in other diseases? Where we are anxious to avoid the general irritation of full vesication, and wish for a manageable local one, may we not resort to the method as recommended by Odier, with a prospect of good? Is it not much better, in the last place, to seek relief in this way than in the more common ones, the rubefacients, &c. in general use?

I have said nothing of the treatment of irritable blisters, or of the secondary inflammation which now and then follows vesication. I have thought a light poultice of crumb of stale bread and milk to give most relief in the first instance. The state of the alimentary canal should be carefully attended to, particularly if costiveness exist. If the patient have taken any indigestible food, and the stomach is oppressed, and nausea be present, an emetic will do much to diminish the pain of the blister. Opiates are sometimes indispensable on account of pain and watchfulness. In a more advanced stage of the disease, when pus is freely secreted, and still the pain is very great, much difficulty is found in forming a dressing which shall be tolerable to the part. In order to give most comfort, the dressing should be arranged with much care. The following detail will hardly be called trifling, if it suggest any thing which may be of use to a sufferer. Take a piece of old linen, twice as large as the vesicated part, cover it accurately with cerate, which shall contain wax enough to prevent its melting by the heat of the skin. Next, so double the cloth as that the surfaces covered with the cerate may come in contact. Let them be pressed together, and more cerate spread on that portion of the linen which is to come in contact with the ulcer. Lastly, let this be covered with rose ointment. I have found this dressing more easily borne by an irritable and painful blister than any other. I have found no benefit from ointments containing any of the preparations of opium, or opium itself. It has been

* *Vid. Manuel de Médecine—Pratique ou Sommaire d'un Cours Gratuit, &c.*
Par Louis Odier, Docteur et Prof. en Médecine, &c. de Genève, a Paris, 1811.

recommended to apply stimulating balsams in some of these cases, and balsam of Peru has been particularly specified. I have not found these remedies useful. Dry lint will be found, in some instances, the easiest dressings to these ulcers. One thing should be especially guarded against; this is the frequent removal of the dressings, and the consequent exposure of the part to the air. I have always found this course injurious, and, in cases of children, it is to be especially avoided. They are exceedingly alarmed, and suffer much from the necessary dressing required, and render professional attention on them exceedingly uncomfortable by their unceasing cries.

Two cases in which blistering was followed by very severe effects, in one of which, in fact, it was fatal, have occurred within my immediate observation, and I shall now give some general account of them.

CASE I.

This case occurred some time since in a boy of six years of age. He had suffered from an attack of inflammation of the lungs, for which a blister to the chest, among other remedies, had been employed. The disease had been severe at its onset, but yielded pretty readily to the means used. During convalescence, on a pleasant day, my patient was taken into the country a few miles. During the drive, the weather changed and became much cooler than it had been. The back of the chaise had been rolled up, and the child was exposed to a strong breeze of cold wind during the drive home. He complained of being cold, and of feeling as if cold water had been poured down his back. A smart chill followed, and this was succeeded by much heat. The blistered surface, which had quite healed, assumed a bright red colour, and soon became very painful. I saw him at this time, and directed a light poultice to the inflamed part, with a gentle aperient and alterative course. Inflammation rapidly increased, which terminated in free suppuration. The mildest dressings were employed, among which were simple cerate, rose cerate, dry lint, &c. The inflammation did not extend beyond the surface originally blistered, but ulceration of this surface took place, and in some parts to a considerable depth. These were constantly filled with pus. Much debility, with loss of flesh, occurred under this great drain; and the usual means were employed to restore tone, and supply this great waste. The dressings were altered, and such employed as are occasionally found to restrain excessive secretions of pus. These

were derived both from vegetables and minerals. From the last, those furnished by the various preparations of the oxide of zinc, were best tolerated by the part, and seemed to do most good. At length granulations formed; the sore became less deep, and cicatrization seemed well established. No more pus was secreted than was perfectly healthy; the strength was improved, and the nutritive processes were well performed. The time occupied thus far in the case was about a month; the month of May, 1819.

Convalescence being again restored, and the weather being very warm, and the situation being a very confined one in which my patient resided, it was judged best to remove him to a very healthful village about five miles distant. This was done, and with all possible care, to prevent irritating the portion of ulcer which remained unhealed. The advice was given from a whole view of the case. Although much had been gained, both locally and generally, still it was evident much remained to be done. The little boy was still irritable. His mind was much enfeebled by his sufferings, and it was hardly possible to render him comfortable. His residence has been mentioned; and it seemed very desirable to place him in as free and pure an atmosphere as possible. He went into the country, but stopped by the way to rest and to dine. There was a shower during his visit; and in walking to the carriage, he stepped into some water which remained in the road, and got his feet wet. His night was a very restless one. The ulcer on the chest became very painful; and though less so in the morning, he seemed much exhausted. His mother, on removing the dressings at this time, saw at once that a great change had occurred in the blistered surface. It was now dry, and of a dark, and in some points of a black colour. I was requested to visit the child without delay.

I found the sore, as it was described to me. Mortification had occurred in spots, and the whole aspect of the ulcer was bad. The system was disturbed. The countenance pale and depressed, and much general exhaustion manifested. The means now used were such as would restore a more healthy action in the portions of the ulcer which were least affected, and which would promote or preserve the most healthy state of the surrounding parts. These were found in the fermenting poultice, powdered bark, &c. and such internal means as would concur with these in any salutary changes they might bring about. The sloughs separated; and though ulceration extended beyond the parts originally diseased, this extension was moderate and soon ceased. Ulceration extended rapidly through

the newly formed and healed parts, and, at length, a deep excavation was made, which was bounded below almost immediately by the sternum and cartilages of neighbouring ribs, and around by slightly elevated edges. The secretion of pus again became excessive, and under every variety of treatment, in the modification of which I was constantly assisted by Dr Warren, emaciation became excessive, with the greatest exhaustion in strength took place. The weather proved exceedingly unfavourable. The heat was intolerable over the whole country, and in the situation in which my patient resided, it was peculiarly severe. Spasms at length occurred, which threatened to become universal, in the form of genuine tetanus. It was determined to give a fair trial to opium, and we began immediately its exhibition in the form of tincture. It was given every second hour at first, and then every third hour until the system manifested its full effects. This occurred, and was discovered in the most perfect relaxation of the whole body. The spasms ceased entirely, and did not recur. A profuse sweat broke out, and a constant nausea, with frequent vomiting, and faintings soon followed the state of relaxation. This state was one of great alarm to the friends. The countenance gave most alarm; it discovered the perfect surrender of the whole powers, animal as well as physical, to the opium. The system, however, at length rallied; and it was obvious, that a great change for the better had taken place. This continued with slight interruptions; and towards the close of July, the ulcer had entirely healed, and the patient was restored to his usual health. A large cicatrix remains upon the seat of the ulcer, and rests almost directly upon the sternum and cartilages. It is fixed closely to these parts, and exhibits the contracted, irregular, white, and shining surface which remains after severe ulceration from a burn or scald.

CASE II.

This was a child between three and four years of age, who was occasionally attacked by slight convulsive disease, but in other respects was healthy. Some one had suggested the use of blisters for this complaint, or it was supposed that such advice had been given. An attack of the fits occurred; and a blister was applied over the sternum, covering a considerable portion of the chest. The blister drew well, and was dressed after the common manner. The child was observed to be very feeble, pale, and cold, on the following day, but this gave little, if any, alarm. The day after, the blistered surface had some-

thing about it which disturbed the mother; and her anxiety was increased by the increasing drowsiness and exhaustion. I was now for the first time called in; and upon removing the dressings, discovered that the whole surface was in a state of gangrene, of that description of it, which results from feeble action. The surface was perfectly dry, without any appearance of vesication; and no line of inflammation bounded it where it terminated in the living parts. The child could hardly be roused from the stupor in which it was found, and the means which were employed did not check the progress of local death. The child died in two days from the time I first saw it.

MISCELLANEOUS COLLECTIONS.

Vaccination.—M. Dutrouilh, of Bourdeaux, in a letter to the French Academy of Medicine, says, that among more than 6000 individuals whom he has vaccinated in the course of twenty years, not one has been attacked with small-pox, although that disease has been frequently epidemic at Bourdeaux during that period. M. Devilliers reports, that of 215 deaths in private houses, in the *twelfth arrondissement* of Paris, during October last, ninety-one were from small-pox, and none of these individuals had been vaccinated. Those who had been vaccinated resorted with impunity among those affected with small-pox; and in those establishments where no persons are admitted who have not been vaccinated, the small-pox did not appear. M. Salmades reports, that in all the experiments of a second vaccination made by a committee appointed for that purpose, no second effect has been produced; and he observes, that practitioners do not always distinguish the true cicatrix from those which are imperfect, and from which it differs in being more figured, or honey-combed (*gaufrée*), and radiated from the centre to the circumference. One or two instances have lately come to our knowledge, in which there is some reason to believe that the second vaccination took effect, although the first, performed some years before, was not in any respect imperfect. As regards the appearance of the cicatrix, many vaccinators doubtless pay too little attention to it. The description of it given by Dr George Gregory, in the *Medico-Chirurgical Transactions*, appears to us to be very correct, and

worthy of insertion in this place ; for, although it has been presented to the public before, we find many practitioners much in doubt concerning the proper criterion of security.

‘ When the scar on the arm is perfect, that is, distinct, circular, radiated, cellulated ; but, above all, when it is small, so that it may be covered by a pea. the secondary affection (if from peculiarity of habit, or any other less ascertained cause it does occur,) will be slight, and hardly deserve the name of a disease. On the other hand, whenever the scar is large, and bears the marks of having been formed by high local inflammation, and wants the other distinctive characters just enumerated, the chance of small-pox occurring in after-life will be greater, and, *cæteris paribus*, there will be a stronger likelihood of its proving severe.’

It is very probable, that, in the instances above mentioned, in which the specific effects of the vaccine virus were supposed to have been twice manifested in the same person, the evidence was not complete in this particular. Not many weeks ago we saw an instance in point. A young lady, of a scrofulous habit, was much alarmed by the fear of small-pox, which disease was prevailing near her residence, although she had a very strong certificate from a respectable surgeon, residing at a distance, of her having twenty years ago had the cow-pox in the most satisfactory manner. But on examining the cicatrix it was found to be large, spreading, and irregularly oval, besides being much deeper and more distinct than the usual vaccine cicatrix even of more recent date. A second vaccination was recommended, and the vesicles went through all their stages with great regularity.—*London Med. Rep. and Review.*

Croton Oil Soap.—A soap has been prepared from the combination of the best croton oil with soda, by Mr Morson, the scientific chemist of Southampton-row, Russell-square, to whom the profession is indebted for the introduction of the sulphate of quinine, and some other foreign remedies, into British practice. The croton oil soap is very admirably adapted for exhibition in the form of pills, or for combination with pill masses. From the trials we have made of it, it seems to act mildly, and equally efficaciously as the uncombined oil ; its combination with the soda diminishing its irritating and griping properties, without lessening its cathartic operation. The dose of the soap is from one to three grains, two grains being generally a medium dose for the adult subject.—*London Med. Rep. and Review.*

*Account of the Present State of Medicine in Italy, by FR. W. OPPENHEIM, M.D.**(Continued from p. 172.)*

The Papal Dominion.—There are two medical schools in the dominions of the Pope, viz. one at Bologna, and one at Rome.

Rome.—The University at Rome is named ‘*Della Sapienza*,’ and has fourteen medical professorships. This university has no museum whatsoever. The medical clinic is in the ‘*Ospedale di St Spirito*,’ where practical anatomy is also taught. The surgical clinic is in the hospital at ‘*St Giacomo in Angustia*.’ There is no institution for the instruction of accoucheurs. The internal arrangement of the Roman hospitals is so peculiar, that it deserves particular notice. They are altogether ecclesiastical institutions, formed according to the notions of churchmen, and destined to serve rather as asylums for the administration of spiritual consolation, than for the cure of diseases. Accordingly, the physicians and surgeons are persons but of secondary importance in a Roman hospital, while the priests and confessors enjoy the chief authority! They alone are the resident officers; to them the admission of a new patient is first communicated; and they administer the first remedies, confession and the sacrament. Chance must decide upon the remaining part of the cure; for, after having taken care of the soul, they concern not themselves about the cure of the body! The hospitals are small, but, on the whole, rather clean. The bedsteads are generally made of iron, some with, and some without curtains. Some of these hospitals are situated in the most unhealthy parts of the city. They are nine in number, and altogether contain about 2000 beds. In some there are separate wards for consumptive patients, for the opinion that consumption is contagious, is universal in Italy. In the lunatic asylum are 400 patients, on whom the whip and the chain are not spared! Some of the hospitals cannot be visited by strangers, except permission has been granted by the Pope, a favour of which his Holiness seems to be very sparing. All the convalescents from the different hospitals are brought to that of the Holy Trinity, for the purpose of enjoying the benefit of a nutritious diet. Dr Oppenheim finds fault with this arrangement; and we agree with him in thinking, that the convalescents might be well fed in the different hospitals, without going to the trouble of removing them to this general convalescent hospital, where, after all, they are only permitted to remain three days!

The diseases of every nation are necessarily much influenced by the customs and domestic habits of the people, and the nature of the climate. He who has not been an eye-witness of it,

cannot form any idea of the uncleanliness prevalent in the South of Italy. The stranger, on his first arrival at Rome, is amazed at seeing whole groups of people, 'gruppi dei otiosi,' consisting of fathers, mothers, children, and friends of the family, all employed in performing for each other, an office which we shall not name. Suffice it to say, they use their fingers for purposes elsewhere performed with combs! This custom is so general, that it has, as a matter of course, occupied the pencil of the artist: and in the magnificent collection of pictures at Florence, is one in which Venus is seen thus elegantly employed on the head of Cupid! So much are the inhabitants accustomed to sleep two in one bed, that when two strangers arrive at a country inn, and require two beds, their demand is considered unreasonable. The peasants of Rome and Naples look upon washing and cleansing the skin as quite unnecessary; and the upper ranks are not less negligent of the bath, than the ancient Romans were attached to its use. The great number of church holidays serves, indeed, in a certain degree, to keep the city from utter filth, for the streets through which the religious processions are to pass, must be previously swept.

In so warm a climate, this utter neglect of cleanliness necessarily produces an abundance of cutaneous complaints; and accordingly, the hospital 'Della St Maria,' containing 400 beds, is insufficient for the accommodation of patients so afflicted. *Tinea capitis* is treated in this hospital in the following singular manner. The head is first smeared with butter, for the purpose of softening the scabs. When the scabs are removed, the head is shaved, and all the roots of the hair pulled out with a broad tweezers. The next step is to make forty or fifty incisions in the scalp with a razor. The free flow of blood from these incisions is favoured by making the child sneeze. The head is finally washed with cold water, and then rubbed with rancid oil. This *cutting and plucking* is repeated every four or five days, as fast as the hair begins to appear. This *cure*, which they commend for being *simple* and *radical*, lasts generally for six or eight months, and in obstinate cases for one or two years!

Vaccination is again much neglected under the present Pope, and of course small-pox is on the increase. There were about 70 small-pox patients in the hospital at the time of Dr Oppenheim's visit. We shall not enter into the sources of the '*aria cattiva*,' which renders Rome so unhealthy, but merely remark, for the benefit of such of our readers as may intend to visit that city, that its influence is most severely felt during the months of June, July, August and September. The miasma

produces, besides common agues, a very fatal species of fever, which is termed the malignant ague. 'The patient becomes at once weary and weak, complaining of heaviness of his limbs, heat of skin, dull headach, and confusion of ideas, &c. The looks are wild, the face oftener pale than red; and, even when it is flushed, a yellowish white tinge is perceptible near the angles of the mouth. The belly is often tender to the touch, and the right hypochondrium swollen. The patient is sometimes costive, but not unfrequently diarrhoea is present from the beginning. Enough has been related to place it beyond doubt, that this fever, at its commencement, is of a gastric character, and is attended with an inflammatory affection of the liver. After the above symptoms have continued for some time, the fit commences with a violent rigor, which is followed in an inconceivably short space of time with a general and excessive disturbance of the whole nervous system, picking the bed clothes; *subsultus tendinum*, the most violent delirium, and a low muttering sort of raving, succeed each other rapidly, and without any apparent regularity. In short, the disease at one moment wears the aspect of a fever attended with excitement, and at the next has all the characters of typhus in its latter stages; and these two forms alternating with each other, seem, if it were possible, combined in the same patient. After the fit the patient feels a greater degree of depression than before. Vomiting often comes on at the height, or towards the end of the paroxysm. The second fit commences five or six hours after the first; and the third begins after an intermission of about the same duration, unless indeed, which not unfrequently happens, death has already closed the scene. *The third fit is always fatal!* Peruvian bark exhibited in the largest possible doses, is the 'sacra ancora' on which the Roman physicians place all their hopes. During the fit blisters and sinapisms are applied to the extremities, while the head is assiduously cooled by means of cloths dipped in cold water. The instant the first fit has ceased, bark is given, and that with the greatest possible diligence, as they do not know the moment a second fit may commence. It is always a favourable symptom that the 'patient bears the bark well, but it too often happens that the stomach immediately rejects it. When this is not the case, four or even six ounces of bark are exhibited in the course of the day. The second fit is then so much diminished in violence, that its accession causes but little disturbance, and the patient is saved. The progress of this disease is most rapid in strong, robust, and plethoric habits. Relapses also frequently occur. In 1825 the proportion of recoveries to deaths was as 85 to 15;

in other years it has been as 80 to 20. All other remedies have proved ineffectual in this fatal disorder. Venesection, emetics, opium, &c. seemed only to hasten its fatal termination, so that the physicians now place no dependence upon any thing except bark, which is used in immense quantities at Rome. The quantity used in the Ospedale St Spirito often amounts daily to 40 or 50 lbs.'

The latter statement of our author, we cannot help observing, accords ill with his previous sweeping censure, concerning the inattention prevalent in the Roman hospitals, with regard to *the bodily complaints of the patients*.

Some successful trials had been made at Rome with the sulphate of quinine, both in this fatal, and in the common forms of ague. When there are symptoms of a deranged state of the alimentary canal, the Romans place no reliance on emetics, but cleanse the *prima viæ* with one drop of croton oil, previously to exhibiting the bark.

The following rules are laid down by the Roman physicians, for strangers who remain at Rome during the sickly season:— They must get up at six o'clock, and, having made a light breakfast, on biscuits, coffee, &c. they may go about their business until after eleven. At one o'clock they dine, and ought to sleep for a few hours after dinner. It is reckoned dangerous to be out at noon, sunrise, or sunset. Two hours after sunset, a walk is recommended, after which a light supper may be taken. At twelve they ought to go to bed, and should sleep with but little bed-clothes. The windows of the bed-room should be kept shut during the night. Strangers are likewise recommended to indulge in cool drinks, and to be very abstemious with regard to wine, which ought to be diluted with water.

'*Phthisis* is not common at Rome, and its introduction has been attributed to the English! for it is universally believed to be contagious. When a consumptive patient dies, his clothes, furniture, and bed are always burned. There exists too a Papal Bull prohibiting the sale of such articles. *Scrofula* is not uncommon at Rome, and calculous complaints are of rather frequent occurrence. Professor Sisco, who has performed the operation of lithotomy on more than fifty patients, follows the method recommended by Cheselden, i. e. the lateral operation; his success has been considerable, and he objects in strong language to the recto-vesical operation of Vacca. The Roman surgeons boast of great success in strangulated hernia. *Sisco* never tries to heal the wound by the first intention, because he considers the cure by suppuration as the only radical one, as it

produces a complete solidification of the parts and thus prevents the necessity of afterwards wearing a truss.

Aneurisms are not common in Rome; their cure is generally attempted, according to Vansalva's method. The Roman surgeons *have hitherto never ventured to tie the artery in this disease, but always proceed at once to amputation when Vansalva's method fails!* and yet Rome is scarcely three days' journey from the residence of Scarpa!

In Syphilis mercury is now used both externally and internally. *Buboës* are never permitted to burst spontaneously; they are always opened with the lancet.

The doctrine of contra-stimulus has fewer advocates in Rome than in any other Italian city.

Bologna has 60,000 inhabitants, an university, two civil hospitals, an orphan house and a work-house. *Spedali della Vita* contains about 500 beds. The wards are spacious, well ventilated and clean. Professors Comelli and Tommasini superintend the medical clinic, and Professor Venturoli the surgical. It is unnecessary for me to detail the medical practice in vogue here, as it is generally known, and the doctrines of contra-stimulus are already sufficiently familiar to the medical world, through the medium of a journal published in Bologna, under the title, '*Giornali della nuova Dottrina Medica Italiana.*' Without discussing the merits or demerits of this doctrine, I may however remark, that the very large doses of medicines which its advocates are in the habit of exhibiting, have universally the effect of rendering the system so difficult to be acted on, that the doses must be constantly increased, in order to produce any effects. Thus I saw a man under treatment for abdominal disease, on whose bowels half a drachm of jalap, and four ounces of castor oil, had not the least effect, until their action was assisted by a purgative enema! We pass by the other hospitals, as affording nothing worthy of remark, except that their internal economy seems better regulated, than that of other Italian hospitals.

The university reckons about 600 students. It is large and beautifully built, and contains not only a good museum of natural history, but a tolerable anatomical collection. The preparations with which it has been enriched by the present Professor of Anatomy, Mandini, are very fine, as are also those made by Professor Quadri, who formerly taught here, but now resides at Naples. In the wax works I was much struck by the beauty of the pieces representing the muscles; they are the works of Lelli and Madame Penarolini. The library contains about 150,000 volumes. The librarian, Professor Mezzo-

fanti is distinguished in the literary world by his uncommon talent for languages. The Botanical Garden is the best I saw in Italy.*

The Kingdom of Naples.—A glance at the state of general literature in Naples, will best explain the state of medical science in that city. All foreign books, even those which have received the sanction of the Roman censors, are subjected to the revision of the Neapolitan censors. If, after a scrupulous examination, nothing is detected unfavourable to the King or Church, the publication of the book is permitted, and a tax of four carolines on each volume must be paid by the publisher. This sum is exorbitant, when we consider the cheapness of Italian books. So heavy a tax is likewise imposed on public prints, that it amounts to a prohibition of all foreign journals. These regulations render the advancement of science so slow in Naples, that what has long since become obsolete in other countries, is there considered as a literary novelty. The Neapolitan physicians find it therefore impossible to keep up with the modern improvements in medicine, and consequently their practice is formed on antiquated models. Luckily for the inhabitants, the climate is so mild, that they seldom stand in need of medical aid, and may in general leave their complaints to the cure of the *vis medicatrix Naturæ*. Little can be expected from an university in such a country, even though it boasts of such men as Vulpes, Quadri, and Lanza. The hospital accommodation too at Naples is quite disproportioned to the number of the inhabitants, which amounts to 450,000.

Dr Oppenheim then proceeds at some length to describe the Lunatic Asylum at Aversa, a little town, situated eight miles from Naples, on the road to Capua. This institution excels, indeed, all others in Italy, but still falls far short of similar institutions in England and Germany. The only peculiarity we think worth relating, arises from the habits and genius of the Neapolitan people. In English mad houses, much reliance is placed in affording means of employing or amusing the convalescents. With this view, we provide the lower classes with the means of following their ordinary trades and occupations, while we offer to the rich the recreation of cultivating a garden, or reading in a library. At Aversa, what are the objects of amusement? Billiard tables, music, various petty national games, puppet-shows of all descriptions, and a variety of toys!!

We would almost believe its inmates to be boys, not men.

* Over the door of the Botanical Garden at Pisa, was formerly inscribed 'Hic Argus, sed non Briareus esto.'

But men it seems they are, at least in Naples, where even the upper classes spend the whole day in the coffee-houses or at the theatre, while the lower orders visit the puppet-show at seven o'clock in the morning, after which they dance the 'Tarantala,' and play the *Morra*. This systematic trifling and habitual idleness afford a sufficient excuse for the indignation of the Priest described in Kelly's Memoirs, who, having dispersed a crowd of Lazaroni assembled around a puppet-show, held up the crucifix, with which he had dealt his blows, and cried, 'Ecco il vero Polcinello,'—an exclamation, which at first appears ridiculous, if not impious, but really conveys a most degrading idea of the people whom he addressed.

The *Lombard State* forms at present a province of Austria, and the constitution of the two universities it possesses, is modelled entirely according to the plan of that of Vienna. A certain course of study, which lasts for five years, is laid down, and no deviation from this plan is permitted. The disadvantages of a restrictive plan of study, which assimilates an university to a great school, are too obvious to require comment; and we cannot therefore help regretting with Dr O. that it should have been lately introduced into France. Our regret is increased by observing, that this plan does not include a branch of medical study, to which we owe our chief progress in anatomy and physiology, and to whose aid we are to look for important additions to pathology, we mean comparative anatomy. When, says Dr O. we find so important an omission, we must indulge in gloomy anticipations concerning the future progress of science in a State, which was formerly so distinguished in comparative anatomy, and produced such men as Spallanzani, Valsava, Lancisi, &c.

Padua, a town with 20,000 inhabitants, has one spacious hospital capable of holding 300 patients. The wards are clean and well ventilated, and the beds are placed at a sufficient distance from each other. The clinical wards contain 24 beds. The medical department is superintended by Professor Brera; the surgical by Professor Ruggieri. The university reckons about 700 students. The building is very beautiful, and originally a palace, planned by Palladio. The cabinet of natural history is tolerable. Fabricius ab Aquapendente, Prosper Alpinus, Morgagni, and other celebrated men, once ornamented this school. Brera, the present Professor of the practice of physic, is a zealous advocate of the system of contra-stimulus, and of course propagates this doctrine among his pupils. It has, however, found fewer advocates among the private practitioners at Padua, than among those at Bologna.

Pavia has 22,000 inhabitants. The Town Hospital is well situated and very roomy, and contains 400 beds. It is better calculated for the purposes of an hospital than any other institution in Italy, having been originally built for the accommodation of the sick, and not, like the rest, for a monastery or a palace. There are four clinical wards, viz. one for medicine, one for surgery, one for diseases of the eye, and one, (as the Catalogue has it) 'per la istruzione di maestri in chirurgia e flebotomia.' Connected with the hospital, is a small institution for lying-in women.

The university is attended by about 400 students.

The building is large, and the architecture fine. No university in Italy can boast of such rich cabinets of natural philosophy, chemistry, natural history, and anatomy. The latter, commenced by Rezia, received many valuable additions from the celebrated Scarpa, lately a Professor at Pavia. Burserius, Tissot, and the two Franks, formerly taught at Pavia.—*Edin. Med. and Surg. Journal.*

*Hereditary Tendency to Hæmorrhagy.**—Of three sisters, Theresa, Catherine and Cydonia, the last, Cydonia, had two children who both died young of measles; the second, Catherine, had ten children, of whom one son was subject to *Hemorrhæa petechialis*, and died at 25 of epistaxis, caused by a fall from a horse. Eight of the other children died under two years of age of various diseases. The eldest sister, Theresa, had three sons and five daughters; of these, two sons and one daughter died young, and one son and four daughters are still living. The son is perfectly healthy; one daughter has emigrated, the second had two children who died young, the third is unmarried and healthy, except liability to ecchymosis in her youth; and the last, Lucy, also healthy, but subject in her youth to ecchymosis and violent epistaxis, had three sons, all of whom have been cut off by hæmorrhagy.

The eldest, John, when only fourteen days old, was carried off by spontaneous and uncontrollable hæmorrhagy from the navel, after it was perfectly cicatrized.

The second and third fell under the observation of Dr Elsaesser. At ten weeks after birth the second became affected with a tendency to ecchymosis, so that until his death, there were always present on various parts of his body, from five to twenty blotches of different sizes. At eight months old the first severe hæmorrhage occurred from his gums, caused by a fall.

* Observed by Dr Elsaesser near Stuitgard, Hufeland's Journal, February and September 1824.

After this he had frequent, obstinate, and excessive hæmorrhages from his noses, both from falls and spontaneously. When two years old, he almost bled to death from a slight cut on a finger. At three he had chin-cough, whose paroxysms were attended with copious expectoration, and frequent and violent epistaxis, but without vomiting. In all these hæmorrhages the blood flowed quietly from all the surface, as from a sponge, thin in consistence, and difficultly coagulable; at first of a dark red, but afterwards of a pale colour, like the water in which flesh had been washed, and having a peculiar smell. The wounds commonly healed by the first intention, rarely by suppuration. When no hæmorrhage had occurred for some time, he became affected with evident signs of plethora, strong pulse, red tumid face, red ears, &c., but the occurrence of hæmorrhage did not seem to depend upon the season of the year, or age of the moon. It was singular that no hæmorrhagy took place from the punctures made in vaccinating him. When three years and eight weeks old, he wounded his right cheek very slightly on the 21st November 1822. A few drops of blood only escaped, and a crust formed on the wound. On the 5th December the crust came off after he had been using exercise, he bled alarmingly till midnight, and he sunk next day with his whole body of the colour of bleached wax. After death his right knee became remarkably red, and about twenty ecchymotic spots were found upon his body.

The third and youngest brother, born in 1821, seemed perfectly healthy, until he was eleven weeks old, when he began to cut his teeth. He was then affected with complaints of various kinds and striking muscular debility, like his deceased brother. Similar ecchymotic spots appeared, and under the same circumstances, but although he had chin-cough from May 1822, to February 1823, no hæmorrhagy took place, nor did he experience it from twice cutting his finger with a sharp knife. His mother on two occasions observed his whole abdomen to become blue, but the colour disappeared in about six or eight hours. He was vaccinated in 1822, without any irregularity in the progress of the pustule. On the 17th April 1823, he had his first hæmorrhagy in the form of bloody clots passed by stool. On account of his eyes and a bright red eruption like urticaria, he got on the 19th a purge of calomel, jalap and magnesia, which produced two florid bloody stools. On the 23d May he struck his head on a sharp corner, which produced a small but deep wound. At the time it discharged only a few drops of blood, and became covered with a crust. But on the 25th, at 4 a. m. the wound, not larger than a pin's head, burst out and bled violently for nearly 30 hours, with intervals of an

hour or two, until it was stopped with prepared sponge. It was remarked that the blood in this case also did not spring out, but oozed as from a sponge, at first dark red and viscid, afterwards florid and thin, and that as often as the child became warm in bed, the haemorrhage was renewed. For some time before, his ears had become of a deep red colour, which frequently alternated with a waxy paleness. After the bleeding they became cold, and quite exsanguious. For half a year before, his skin also had been intolerably itchy. On the 30th of June at 7 a. m. he had two stools of black clotted and very fetid blood, and at 10 a. m. a third. He had no further motion till 1st July, when he passed by stool a large quantity of dark red clotted and very fetid blood at 1 a. m. and again at mid-day. In the evening his debility was extreme, and attended by convulsions. On the 2d a copious discharge of *florid*, somewhat lumpy, very fetid blood *per anum* brought on insensibility and convulsions, and he sunk about mid-day.

The body was opened 28 hours after death. It was generally exsanguious like a wax figure, but here and there, especially on the thighs, separate spots of ecchymosis were visible upon the skin. The wound on the left side of the head was firmly cicatrized. Between the integuments and pericranium, there was a large suggillation on the crown of the head. The *dura mater* adhered firmly to the cranium; the cortical and medullary substance of the brain natural; no water in the lateral ventricles; the *plexus choroidei* bleached and empty of blood, as were all the blood-vessels in the head; cerebellum also bloodless; some ounces of turbid liquid flowed from the spinal cavity. The viscera of the thorax and abdomen were almost bloodless, and very much blanched; the thymus remarkably so: from incisions made into the pale lungs, some quite thin blood escaped. Immediately above the trachea, in the angle between the *innominata* and carotid, was found some glands as hard as cartilage and of a yellowish white colour; the pericardium contained little serum; the structure of the heart was quite natural; a watery blood that tinged linen of a pale and red colour, as flesh-water does, flowed from the large arteries and veins, which were all very pale, but upon minute examination they were not thinner than natural, or in any way diseased. There was no effusion into the abdomen: the liver was very pale, but, as well as the kidneys and *renes succenturiati* of healthy texture, but only bloodless; the spleen large but natural; the stomach very much distended, and its villous coat in the cardiac half uniformly pale red; the gall-bladder contained much natural bile; the small intestines to the *ileum* very pale, but from this to the *cæcum* reddish, from containing reddish

slime. From the cæcum the colour was progressively deeper through the *colon* into the *rectum*, in proportion as this part of the canal contained more mucus that was mixed with florid blood; the intestinal glands were more obvious in the small intestines, but accumulated and remarkably larger in the large intestines. In the free portion of the mesentery were many indurated glands, some of the size of a hazel nut, and of a firmer consistence than lard, but not so hard as those near the trachea.

In Horn's Archives for May and June 1820, there is a very elaborate paper on hereditary tendency to fatal hæmorrhagy by Dr Nasse of Bonn, in which he has collected the various examples of it that has been published, and added some original instances. It was first noticed by Albucasis in Alsaharavius Liber Theoreticæ necnon Præticæ, translated into Latin from the Arabic M.S. by Paul Riccius, and printed at Augsburg 1519; and afterwards in Germany by the author of the Medical Ephemerides, Chemnitz 1793; the publishers of the selection of treatises on Practical Medicine. Vol. 22, Leipzig 1805; a review in the Gottingen Notices 1809; Consbruch in Huseland's Journal 1810. Nasse himself, in his excellent Essay on Cyanosis in Reil's Archives 1811, and Meckel in the German Archives for Physiology, 1816. In America Dr Otto published concerning it in the Medical Repository, 1803, and quotes Dr Rush and Dr Boardley as having also observed it; an anonymous observer in the Philadelphia Medical Museum 1804, Dr Hayes in the New England Journal, and the Doctors Buel in the Transactions of the Physico-Medical Society of New-York, 1817.

The instance communicated to Dr Nasse by Dr Krimer is very striking. M. K. whose paternal uncle had been subject to epistaxis, had lost all her five brothers in early youth by hæmorrhagy, from trifling injuries, or without ascertained cause. She herself had five sons and two daughters. Of the sons four had died of hæmorrhage; but one, notwithstanding many dangerous attacks, was still alive when the history was written, and had two sons and a daughter, in whom the tendency had not appeared. A sister of M. K. had two sons and two daughters. One of the sons died in a few days after birth, of cramp, asphyxia, and blueness of the whole body. The other son was liable to bleedings and ecchymosis. None of the females of the family had any hæmorrhagic disposition.—*Edin. Med. and Surg. Journal.*

Singular Case of disease of the Fifth Pair of Nerves. (*Journal Physiologie, Juillet, 1825.*)—The indefatigable M. Serres, has just published a most interesting case of disease and partial destruction of the fifth cerebral nerve, confirming by an observation in man, the extraordinary phenomena witnessed by Bell, Mayo, and Magendie in their experiments on animals. A man, 26 years old, was admitted into the hospital of La Pitié for Epilepsy. He had at the same time a chronic inflammation of the right eye. The particulars of his case were not minutely attended to for some time, as every attempt made to question him tended to renew the epileptic fits. The inflammation of the eye became acute in December 1823; and though it was checked by proper treatment, the cornea became opaque, and the sight was lost. Not long afterwards it was also remarked, that the right eye was insensible. In June 1824 M. Serres, having been shown Magendie's experiments on the effects of dividing the fifth nerve in animals, was forcibly struck with the analogy subsisting between these effects, and the inflammation, opacity and insensibility of the eye in his patient; and in consequence was led to examine his state more minutely. The right eye was insensible to a blunt probe drawn over it; the right nostril was insensible to snuff, ammonia and ether; pepper placed on the right side of the tongue caused no sensation. On the contrary the left eye was quite sensible; with the left nostril the man could smell ether, ammonia, and snuff; and pepper put on the left side of the tongue caused salivation and a sense of heat and pungency. The movements of the jaw were entire; and the *sensation over the whole face and neck was perfect.* (This last fact is contradictory to every experiment hitherto made on the fifth nerve). A few days afterwards, the gums of the right side became red and swelled, and gradually receded from the teeth, which in consequence got loose in their sockets; and some days before the man died, he lost the hearing of the right ear. On dissection the right fifth nerve was found very much diseased. The ganglion Gasserii was enlarged, of a dull yellow colour, and the fibres were separated by serum; the nerves which proceed from it were in the same condition. The fibrils which form the muscular division passing under the ganglion were quite healthy; and the same was observed in the third branch or inferior maxillary, which, proceeding in part from the ganglion, is afterwards joined by the muscular fibrils. The muscular division of it was quite healthy, while the ganglionic portion had a yellow colour; so that the two portions were distinguished much better than they could be by dissection in the healthy subject. The trunk of the

nerve before it forms the ganglion was so soft that it broke, although great caution was observed in raising the brain. The disease could be traced into the substance of the pons varolii from which the nerve arises; but the origin of the muscular division was healthy.

With the exception of the sensibility of the right side of the face there is not a single fact in this case which does not accord completely with those noticed by Magendie on animals. Not long after, two similar cases occurred in M. Serres's hospital, which he was enabled to cure in consequence of the light thrown upon them by this man's case and Magendie's experiments. So much for the affected sensibility and ignorant interference of those who have decried that physiologist's labours, and attempted to suppress physiological experiments generally.

—*Edin. Med. and Surg. Journal.*

Treatment of Tænia by Croton Oil.—(Annali Universali di Medicina, Aprile e Maggio, 1825.)—An Italian physician, of the name of Puccinotti has lately recommended the employment of the croton oil as a successful remedy in bad cases of Tænia. He has not used it very often, but the results he has obtained justify the belief, that it is a useful remedy when even the oil of turpentine fails, as it is certainly also a preferable remedy in respect to the facility of its administration. The following is an abstract of the only one of his cases which he has given in detail:—A man, 28 years old, had been liable to tænia for six years; during which time a great variety of the most active remedies had been tried by a physician of skill. Puccinotti recommended him to use the croton oil in the dose of one drop, taken in a little beef-tea. The patient, following his instructions, lived sparingly for a couple of days, and took the medicine, while fasting, on the morning of the third day. It caused a slight sense of heat in the fauces, and, about an hour afterwards, began to operate as a mild laxative. He had eight stools in the course of the day, without pain, straining, or any uneasiness whatever, and discharged along with them a great number of fragments of tape-worm. The dose was repeated after a day's interval, and this time caused six stools, containing more fragments of the worm. For some days after that, the patient felt himself quite free from his former ailments, and convalesced rapidly. In a month, however, he was again taken ill with giddiness, tormina, and occasional discharge of joints of the worm. The croton oil was therefore resumed, with the same success as before; and it was repeated six times, with in-

tervals of one or two days. He has not had any return of his complaints since.—*Edin. Med. and Surg. Journal.*

Treatment of Poisoned Wounds by the Application of Cupping-glasses.—(Archives Générales de Médecine, Septembre & Octobre 1825.)—At the meeting of the Royal Academy of Medicine of Paris, on the 9th of August last, Dr Barry, an English physician, resident in the French metropolis, read an account of some experiments on the effect of applying cupping-glasses to poisoned wounds. According to Dr Barry, if a mortal dose of strychnia, or hydrocyanic acid, the most deadly poisons with which we are acquainted, be introduced into a wound after the blood has ceased to flow, the usual effects will be prevented as long as the suction is kept up; nay, if the cupping-glasses be applied after the symptoms of poisoning have commenced, the animal will recover. A committee of the Académie was appointed to witness and report on the experiments of Dr Barry; and their report confirms all his statements. The following is an abstract of the most remarkable experiments: Eight grains of arsenic were introduced into a wound in the thigh of a dog. In four hours he was very ill; and he died in fifteen hours. On another dog, under the same circumstances, a cupping-glass was applied 45 minutes after the arsenic, and in four hours there was not the slightest appearance of ailment. Six drops of diluted hydrocyanic acid, containing $1\frac{1}{2}$ of the pure acid, were dropped into a wound in a rabbit, and a glass applied immediately afterwards. In twelve minutes, no symptom of poisoning having appeared, the glass was taken off. The animal was immediately seized with violent convulsions, and soon appeared dead. It revived on the re-application of the cupping-glass. After twelve minutes more had elapsed, the glass was again taken off, and the same symptoms recommenced. On then applying it twelve minutes longer, it was withdrawn permanently, and the animal recovered. A rabbit poisoned under the same circumstances, without the application of the cupping-glass, died in two minutes. One grain of the upas-tieuté was thrust deep into a wound in a rabbit, and a cupping-glass applied immediately. The results were analogous to those obtained with the hydrocyanic acid. On two occasions, half an hour and three-quarters of an hour after the introduction of the poison, the removal of the cupping-glass was followed by the appearance of the peculiar symptoms of poisoning with strychnia; and each time the symptoms receded when the glass was replaced. Dr Barry thinks these experiments prove, that not only the absorption of the poison is prevented, but likewise

what is absorbed previously to the application of the cupping-glass is withdrawn from the circulation; and some have seen in them a proof that certain poisons, previously supposed to act through the blood, really act through means of the nerves. In our opinion, neither supposition is well founded. It is absurd to talk of poison being drawn to the wound after being distributed through the whole circulating mass of the blood; the symptoms disappear, because what is absorbed is either excreted or decomposed, and because, farther absorption being prevented, the poison cannot accumulate in sufficient quantity to prove fatal. By intermissions in the application of the glass, the whole poison is absorbed in separate small portions, and discharged from the system in like manner; so that the symptoms do not become dangerous in degree. Barry's experiments, so far from upholding the doctrine of poisons acting by nervous sympathy, appear, in our opinion, to disprove it. We can easily understand how the suction caused by cupping-glasses will prevent absorption. We cannot, on the other hand, perceive how it could prevent the poison from lying in contact with the nerves, which is all that can be requisite to produce the necessary impression. These experiments are deeply interesting, and, in a practical view, highly important.—*Edin. Med. and Surg. Journal.*

Dr Morris's Case of Stone in the Bladder, with a new method of relieving the sufferings occasioned by that complaint.—The following particulars we have been permitted to extract from a highly interesting communication by Dr Morris of Canada. The Doctor's observations derive additional interest from the circumstance of his having been himself the subject of the disease he describes.

Many months since, our author states, he was attacked with symptoms of calculus. He had 'violent and excruciating pain in his right ureter, increasing at intervals for about 12 hours, with a profuse discharge of blood.' After this the calculus 'dropped into the bladder.'

To set the nature of the affection out of all doubt, the Doctor had a sound introduced by an eminent surgeon. The result of this operation was complete confirmation of the conclusion which the previous symptoms had led the patient to adopt—and now an opportunity presented itself of putting to the test of experience, on his own person, a speculation which the Doctor had entertained for a considerable time anteriorly to the supervention of the symptoms above mentioned. Different considerations had inclined Dr M. to the opinion, that the in-

troduction of a lubricating fluid into the bladder would be productive of ease and advantage. This experiment, therefore, he now determined on trying on his own person, and he at length put the project in execution. 'I first took care,' says Dr Morris, 'to rid myself of the contents of my bladder; this I had no sooner accomplished than, with a large syringe, I injected (through a small leaden tube reaching to the sphincter, no further) about two ounces of the oil (cold-drawn castor-oil), and I cannot express to you my feelings occasioned by the change which took place upon the moment of its introduction, for *it seemed as if a new lower half had been given me.*'—'The absence of former symptoms still continuing, I went to bed, and can safely say that I had not known, for some time previous, the pleasure of a sound and uninterrupted sleep. Latterly I never awoke without a wish to make water, and the morning following was the first exception to it. When I did obey the call, I took care, finding that the oil came last, to leave as much within the bladder as I could. This I had little difficulty in effecting, as it does not dispose the bladder to contract as other fluids do.'

After this the bladder was constantly supplied with two or three ounces of oil, and under this treatment every symptom of irritation vanished, and during two months, namely, from the first introduction of the oil up to the date of the Doctor's departure for Canada, no one symptom re-appeared to remind him of the existence of the calculous concretion.

Previously to using the injection, Doctor Morris had 'tried the introduction of Weiss's instruments, and endeavoured to enlarge the passage with the hope of expelling it, knowing that the stone was not large; but 'whether it was from any defect in the form of the instrument I employed, says Dr M., or from my own want of skill in the management of it, which latter is the more likely, I cannot say. I can only affirm, that with all the delicacy I could master I could not obviate the disagreeable feeling its presence occasioned. The contraction of the bladder in its endeavours to expel it were intolerable, and with the extension of the parts and irritation it left, it gave rise to an incontinence of urine of three months duration.'

An interesting remark of Dr Morris's to which we cannot neglect calling the reader's attention, is, that after the injection of the oil, and during the experiment, he has observed particles of sand evacuated. Before the use of the injections the Dr does not appear to have detected any gravel passing with the urine. He is disposed, therefore, to believe, that the appearance of sand is to be attributed to a softening of the stone by

the oil; and, taking into account the absence of symptoms of irritation in the kidney, ureter, and bladder, that view of the matter is perhaps more probable than any other. Of the further progress of Dr Morris's experiment, we shall be very glad to receive any information the Doctor may be enabled to communicate.

Should the result of any repetition of Dr M.'s experiment, that may be made on this side of the Atlantic, reach us, we shall of course make it known, on the earliest convenient occasion, to all readers of this Journal.—*Edin. Med. and Surg. Journal.*

*M. Louis on Phthisis.** The reporters observe, the subject of pulmonary phthisis has been so ably and so minutely handled by M. Bayle, that whoever pretends to follow the same path must expect to have some unfavourable prepossessions to overcome. Arrived at that age when physicians generally merge all ardour for science, in the acquisition of wealth, M. Louis gave up private practice, and devoted himself to a laborious investigation, which is by no means yet exhausted.

From the month of October, 1821, up to the date of publication, he has dedicated the whole of his time to the histories, treatment, cures, deaths, and dissections of the patients admitted into the wards of LA CHARITE, amounting in that period to the number of 1960, of whom 358 died. Of these last, there were 127 deaths by phthisis, and 40 by other diseases, the patients still presenting tubercles in the lungs. This morbid phenomenon then existed in nearly one half of all who died in the hospital—a fearful proportion of tubercular disposition—constituting the principal, if not the exclusive cause of death in more than one case out of three! Now, as it is not probable that a greater proportion of tubercular diseases should enter the *Charité* than any other hospital, it is reasonable to conclude that this proportion would hold good throughout all the public establishments, of general reception, and, possibly, through private life—and death. Should this be the case, the tubercular disposition is more predominant in France than in this country, according to our present calculations:—For we believe it has never been computed that more than one in four or five die of tubercular phthisis in England.

The first part of M. Louis's work is dedicated to the *anatomical lesions*; and, as these had been so well described by

* Rapport fait à l'Academie Royale de Médecine, sur un Manuscrit intitulé, 'Recherches Anatomico-Pathologiques sur la Phthisie.' Par M. Louis.

Bayle, Laennec, and other writers, our author is obliged to be very concise. Yet even this part is not destitute of original observations. Thus, for example, he has proved that not only do tubercles affect especially the *superior portions* of the lungs, but that, when they are found in the different lobes, those situated in parts above-mentioned, are always more numerous, larger, and sooner suppurated than the others. He has often found the upper lobe entirely disorganized by tubercles, while the inferior was either free, or nearly so, from tuberculation.

The air-passages have offered to our author some morbid phenomena, imperfectly described by Bayle. In one hundred and two cases, M. Louis has found 18 instances of ulceration of the epiglottis—23 of laryngeal ulceration, and 31 of ulceration of the trachea. In several instances he found the tracheal ulceration occupying the whole of the muscular portion of this conduit; and, in one case, several of the cartilaginous rings completely destroyed. In respect to the mucous membrane of the lungs, our author has found it but seldom affected, even in the neighbourhood of *crude* tubercles; while, in the vicinity of excavations, especially if large, or of long standing, this membrane was almost always thickened and red. He thinks the phlogosis of the mucous membrane is the effect, and not the cause, of the tubercular excavations.

In about a tenth of the whole number, it appeared to our author that acute inflammation took place in the parenchymatous substance of the lungs during the last days of the patient's existence.

The pleural adhesions, so common in phthisical patients, have attracted much of our author's attention. He only found a single case where both lungs were free from these adhesions. There were generally a relative proportion between the degree of the adhesions and the size and number of the excavations.

In nearly a third of those who died of tubercular phthisis, our author found tubercles or tuberculous matter in the *small intestines*. In one case in nine, the *large intestines* offered similar phenomena. In a *fourth part* of the number the mesenteric glands were tuberculous—in a tenth, the cervical glands—in a twelfth, the lumbar lymphatic glands—in a thirteenth, the prostate was tuberculous—in a fourteenth, the spleen—in a twentieth, the ovaries—in a fortieth, the kidneys—in one instance only was the brain, spinal marrow, or ureters affected with tuberculation.

This investigation, conducted with such scrupulous exactness, has led our author to the following important result, viz. that in no one instance, where tuberculation obtained in any one organ

of the body, did the same morbid phenomenon fail to appear in the lungs. Even in every case, where tuberculous concretions formed in the serous membranes, as the result of chronic inflammation, there was *pulmonary* tuberculation in the same subject. The lungs then exhibit a most remarkable disposition to this deploitable malady.

The researches of M. Louis have corrected an error into which several pathologists have fallen respecting enlargements of the right chambers of the heart. Many physicians have considered pulmonary tuberculation as a fertile source of diseases of the heart in general, and particularly of enlargements of the right ventricle. It was supposed that tubercles caused obstruction to the circulation, and that this last led to dilatation of those chambers of the heart connected with the pulmonary circulation. This supposition is negatived by M. Louis, who found in the great majority of those who fell under phthisis, the heart and aorta *diminished* in size, in proportion to the shrinking of the other viscera, the usual consequences of the pulmonic emaciation.

In ninety-six cases, (phthisical) where the stomach was carefully examined, there were found nine instances wherein the volume of this organ was doubled or even tripled. Only two examples of this phenomenon were observed among all the patients who died of other diseases. But other lesions of the stomach were very numerous among the phthisical dissections. Seventy-eight out of the ninety-six, presented strong marks of disease, such as softening of the coats—extenuation—redness with thickening, &c. &c. In two cases there were ulcerations, without any other change of structure in this organ. It is, therefore, evident that affections of the stomach are very frequent in the latter stages of phthisis pulmonalis. The same may be said, and still more strongly, of ulceration of the small intestines. Five in six of those who died of phthisis presented this lesion. It is curious that wherever this ulceration of the mucous membrane existed, a corresponding thickening, either of the cellular or muscular membrane obtained, as if Nature took this precaution to guard against erosion of the canal. The cœcum, colon, and rectum did not quite so frequently present the lesion in question. This affection of the mucous membrane accounts for the general finale to consumptive cases—colliquative diarrhoea.

In two-thirds of the dissections M. Louis found that fatty condition of the liver ('l'état graisseux du foie') described by M. Bayle. This state seems almost peculiar to tubercular phthisis, for, in the examination of 220 bodies, who had died of other diseases, only two instances of this kind were observed.

Such is an outline of the first part of M. Louis's work. The second part is on the prominent symptoms of tubercular phthisis, and presents some curious and important results.

In two-thirds of the cases of phthisis the disease was preceded by hæmoptysis. In one-fifth of the number this accident happened before there was any cough or expectoration. In the whole 1960 individuals there were none who had spontaneous pulmonary hæmorrhage, except the phthisical portion. The exceptions were a very small number of females who had discharges of blood from the chest in suppressions of the catamenia. From these premises the author concludes that pulmonary hæmorrhage, to any extent, is, in itself, a strong presumption that there are tubercles in the lungs.*

The pains in the chest which are complained of, may be attributed either to the pulmonary tubercles, or to the adhesions; but, as these two phenomena are almost always found together, it is difficult to say which of them is the cause of the pains. It is infinitely more probable, however, that the pains are owing to the pleural adhesions than to the tuberculous growths in the pulmonary structure.

Cold chills, or rigors were observed in five-sixths of the cases—night-sweats in nine-tenths. The alternations of night-sweats and diarrhoea were not found in near so regular a succession as both ancient and modern authors have laid down.

Diarrhoea shewed itself, for a longer or shorter period, in almost all the patients who sunk under phthisis. In proportion to the length of time which it continued before death, was the degree of ulceration in the mucous membrane of the intestines.

Those patients in whom ulceration of the epiglottis was found, had experienced a fixed pain at the upper part of, or rather above, the thyroid cartilage—and difficulty of deglutition, sometimes so great as to cause liquids to be returned through the nostrils.

Local pain, more or less acute, and complete aphony, during one or more months, were the only *characteristic* symptoms of laryngeal ulceration. As to ulcerations of the trachea, they were not accompanied by any *particular* symptoms on which our author could ground a specific diagnosis.

The lesions of the stomach were denoted by apyrexia, epigastric uneasiness, nausea, and even vomiting. Gastric affec-

* The Commission, who report on this work, consider this conclusion of our Author's as greatly invalidated by the experience of the profession. We confess we are gloomy enough to believe that M. Louis is very near the truth, in the above deduction.—*Rev.*

tion being so very common a phenomenon in phthisis, and this last being, unfortunately, so very prevalent in all northern climates, it was very desirable to ascertain what connexion existed between the state of the tongue and the state of the stomach, in the latter stages of phthisis—this connexion being so much insisted on by modern writers, and especially by the numerous adherents of the school of Broussais. Voici donc.

Out of 96 cases of the most accurate dissection of the stomach in phthisical patients, this viscus was found without the slightest appreciable lesion in nineteen instances. In the other 79 cases, the stomach presented various lesions. Of the 19 cases above-mentioned, nine presented, while living, more or less redness of the tongue. In one instance, this redness was in the highest degree, and had continued so during the whole of his sojourn in the hospital, which was 32 days before his death—yet, on dissection, the stomach was found perfectly natural in every respect. Of the 79 cases where there were various lesions of the stomach, 35 only presented redness of the tongue during life, and in five of these, the redness was extremely trifling, and only temporary. ‘It hence results that the redness of tongue was found in nearly an equal proportion among those who had, and those who had not, an affection of the mucous membrane of the stomach.’

Every one knows how easy the diagnosis of phthisis pulmonalis is, at an advanced period of the disease—and how difficult is the said diagnosis in the early periods of the same! M. Louis has directed his attention much to this subject, and the following are his observations:—

‘A dry cough, of considerable duration; a shortness of breath easily induced by exertion or speaking; pains more or less acute in the back or sides; a notable diminution of embonpoint and muscular strength;—these are symptoms which ought to lead us to suspect the existence of tubercles in the lungs. If they succeed one or two attacks of hæmoptysis, we may be almost certain that phthisis is at hand. Auscultation and percussion should then be had recourse to, in order to solve our doubts. If the sound of the chest is dull under one of the clavicles, for a small extent of surface—if the respiratory murmur is there feeble, and accompanied by some degree of wheezing, (râle) these phenomena being absent in other parts of the chest, then we have strong confirmations of our fears.’

When the disease is advanced to that period when the tubercles become broken down, and excavations formed, then the diagnosis is sufficiently easy. Pectoriloquism furnishes a certain criterion, with the exception of those comparatively rare

cases where bronchial dilation exhibits the phenomenon of pectoriloquism. The other symptoms will then generally decide the question.—*London Medico-Chirurgical Review.*

Perforation of the Stomach.—Mr Barber, (of Henrietta-street, Covent-garden) a gentleman of middle age, had been affected with daily vomiting for nearly 20 years; and his father had been subject to the same complaint, of which he ultimately died. Mr Barber, however, was rarely prevented from attending to his usual concerns, up to the day before his death. The vomiting generally came on some two or three hours after eating, and blood was frequently seen in the ejected matters. He occasionally complained of pain in the region of the stomach. He was not at all emaciated—but, on the contrary, was rather fleshy. On Tuesday, the 6th December, 1825, he ate a hearty dinner of beef-steaks and drank some spirits and water afterwards. While in this last act, he was seized with sudden and violent pain in the region of the stomach, which soon spread all over the abdomen, attended with constant restlessness, quick pulse, anxious countenance, and tendency to sickness. Mr Best, surgeon, of Tavistock-street, was called to the patient, and bled him, directing such other measures as he deemed proper. At one o'clock, p. m. on Thursday, the 7th, Dr Johnson was called in, and found the patient with the symptoms above-described, the abdomen being very tense and distended, the pulse 120 and sharp—the tongue coated—the countenance indicative of the greatest distress. On examination, it was perceived that an old inguinal hernia, which had lately given no uneasiness, was moderately distended, and its contents easily reducible; but these contents immediately returned, as soon as pressure was taken off. Dr J. suspecting that there might be some strangulation about the inner ring, suggested the propriety of an operating surgeon being joined in the consultation, and Mr Stanly attended at 4 o'clock. Meantime the abdomen was covered with leeches, and attempts were made to open the bowels, both by medicines and enemata. Mr Stanly examined the hernia, but could not perceive that there was any proof of strangulation. The medical attendants met again at 10 o'clock, and it was evident that the patient was at the point of death. He had vomited upwards of three pints of a black fluid, resembling coffee grounds. The pulse was scarcely perceptible, and the countenance was ghastly. The hernial tumour was now larger than ever, and a crackling or gurgling noise was heard in it when pressed up towards the abdomen. Mr Stanly now thought it advisable to proceed to an operation, in order

to ascertain, more exactly, the state of the hernia, giving the friends but little hopes of success at the same time. After laying bare the sac, which was much distended, Mr S. continued to divide layer after layer, with great caution, when suddenly, on making a small puncture, a rush of air, followed by a discharge of reddish fluid, took place. At each inspiration these fluids were discharged, in considerable quantities, and with a gurgling noise—and these discharges continued without any abatement, so that it was evident a communication had been made with the abdomen, but whether with the internal surface of the bowels or with the peritoneal cavity, was not certain. Under these circumstances, and, especially, as the patient was evidently dying, it was not deemed prudent to proceed farther with the operation. A ligature was passed round the puncture, the lips of the wound stitched, and adhesive straps applied. At half-past 11 Mr B. died.

Dissection. The stomach was of a most enormous size, and its peritoneal coat, together with the whole peritoneal covering of the intestines greatly inflamed. A quantity of dark-coloured fluid, nearly resembling that which the patient had vomited, was found diffused in the general cavity of the abdomen, in which there was also a good deal of air, which escaped on first opening the cavity. Near the pyloric orifice of the stomach, a small opening, the size of a silver penny, was discovered externally. The viscus was then cut out carefully, and examined. On its internal surface, and corresponding with the aperture discovered externally, there was an old ulcer, with hard, white, and raised edges. In its centre was the aperture above-mentioned. No intestine or omentum was in the hernial sac, which was filled with the same kind of fluid as that contained in the general cavity of the abdomen.

The whole of the phenomena were now clearly accounted for. The ulcer in the stomach had existed for years, and gave origin to the vomitings and bloody discharges. On Tuesday the bottom of the ulcer gave way, and the contents of the stomach were discharged into the abdominal cavity—hence the pain, inflammation, and distention. Part of this extravasation (both fluid and aerial) had made its way into the hernial sac, and thus caused the puzzling phenomena above-mentioned, in the operation.

It is a curious circumstance that Mr Barber's father died, apparently of the same disease, but no post-mortem examination took place. This event led to a ready permission, on the part of the relatives, for opening the body, of which the medical attendants quickly availed themselves.—*London Medico-Chirurgical Review.*

*Staphyloraphia.**—In certain cases, and those of not very rare occurrence, there is a division of the velum pendulum palati, or soft palate, as a congenital defect, somewhat analogous to the hare-lip. This defect is not merely a deformity like the latter, but is a serious impediment to the functions of deglutition and speech. This misfortune has been, till lately, considered as irremediable; but within the last five or six years, a number of individuals have been cured by an operation, which M. Roux appears to have been the first, or among the first to perform—and that on a young medical gentleman, Mr Stephenson, from Canada. This gentleman was born with a complete division of the velum palati, through its centre, where a triangular space was left instead of the uvula. In the early periods of life Mr S. was fed with much difficulty. Afterwards other inconveniences were felt. When he vomited, the matters ejected from the stomach passed through the nostrils, as well as liquids, when he attempted to swallow them without holding back the head. He could not blow air into any instrument through the mouth, and his voice and pronunciation were greatly deteriorated and embarrassed. On looking into his mouth, M. Roux observed certain momentary contractions of the parts, by which they were brought nearly in apposition. He was surprised at this power in the muscles of the palate, and he immediately conceived the idea of a re-union of the divided portions, on the same principle as the operation for the hare-lip. The means to be employed were evidently excision of the edges, and then retention of them in contact, by suture. The suture employed then and since has been the interrupted. Contrary to the procedure in the hare-lip operation, M. Roux determined to place the ligatures *before* he incised the edges of the cleft palate, so that when this last was done, he should have only to draw and tie the threads, and thus finish the operation. For our own parts, we should have thought the presence of the threads would have embarrassed the operation of excision; but M. R. thinks otherwise. Small crooked needles were employed to pass the threads, and a probe-pointed bistoury, with crooked forceps were the instruments for excision. Three ligatures were placed—one near the bottom of the division, one in the middle—and one near the extremity. The operation lasted fifty minutes, and when finished, Mr Stephenson's voice was found to be quite altered, and his pronunciation rendered natural. Strict silence and rigid abstinence were then enjoined, and the case went on without any serious accident. Two of

* M. Roux. Archives Générales, Avril, 1825.

the ligatures were cut away on the evening of the third day. The third was suffered to remain 24 hours longer. No food was permitted to be taken all this time, and only a few spoonfuls of soup now. Silence was enjoined till the 8th day. The point of the uvula was observed to be bifid, and a piece was cut off the longer division. Mr Stephenson's voice, though amazingly improved and improving, was still somewhat nasal, at the end of six months from the operation.

This congenital deficiency is found in different degrees, but by far the most common form is that which Mr Stephenson presented. The division, in all cases, is found to be precisely in the middle of the uvula and velum pendulum palati. Seven cases are detailed of this operation, where there was simple division of the soft palate, and no separation of the bones. The eighth, ninth, tenth, and some other cases, in which there was separation of the bones, as well as of the soft palate, were unsuccessful. In the 13th case, where there was a partial separation of the bony palate, namely in one third of its posterior part, and to the extent of five lines, our author had more success. A partial union of the soft palate took place, not at its anterior but posterior part, by which result an aperture was left, just above the uvula, which appendix was formed by the partial union.

Such are the facts which M. Roux has brought forward, and we think they are such as to encourage expert surgeons to exercise their dexterity in relieving such infirmities wherever they are met with.—*London Medico-Chirurgical Review.*

Hæmorrhage in Lithotomy.—In the operation for stone, more than in any other surgical operation, an unusual distribution of the arteries is productive of great embarrassment to the surgeon and danger to the patient. No skill or dexterity, in such a case, can always avail; for the divided vessel is often beyond the reach of ligature or pressure. Unfortunately there are never wanting people in our profession, ready to seize on such an accident, for the purpose of gratifying a diabolical propensity to defame and traduce the character of those who may be more eminent or distinguished than themselves. A Cooper, a Brodie, and a Bell have, in this way, been maligned by the most ignorant and contemptible of the profession! The following passage in the 9th volume of Baron Boyer's great Chirurgical work deserves to be transcribed here. 'Hæmorrhage,' says he, 'is one of the most common accidents of lithotomy, and is often placed to the account of the operator, or of the mode of operating, but almost always unjustly;—for the vessels of the

part divided present so much variety in their situation and direction, that the most expert surgeon (*chirurgeon le plus habile*) is not always able to avoid them, whatever precaution he may take.'—p. 429.

We all know the outcry that was made about an unsuccessful operation lately performed by Mr Shaw at the Middlesex Hospital, and the lies and misrepresentations which were published on that occasion. Mr Shaw has properly laid the case before the public, with a drawing, in which the unusual distribution of a branch of the Ischiatic or Pudic traversing the neck of the bladder, and lying directly in the way of the incision is clearly demonstrated. From this vessel a great hæmorrhage took place, and caused the death of the patient. The case itself is well deserving of record, and is probably of more frequent occurrence than is generally supposed. We shall give the particulars in this place.

The patient was a stout countryman, who came into the hospital, without knowing what was his complaint. On sounding, the stone was supposed to be small, and attempts were made, but without success, to extract it per urethram.—At length the operation was performed. On feeling the staff through the face of the prostate, Mr Shaw cut upon it, and carried his knife forward through the membranous part of the urethra and the prostate gland. On making this incision there was a gush of blood, but the operation was prosecuted, and two small calculi were readily extracted, in the course of three or four minutes. The blood flowed profusely, and Mr S. feared that he had cut the pudic, but finding it beat strongly and distinctly under his finger, he was relieved from that apprehension. Pressure on that vessel had no effect in stopping the hæmorrhage. The patient was kept on the table for some time, and the flow of blood appearing to lessen, he was put to bed, while cold applications were made to the lower part of the body. The bleeding, however, was renewed, and the wound was exposed to a strong light, when the pudic was distinctly seen beating all along the ramus. On sponging the wound clean, the blood was seen to ooze apparently from the bladder. The depth of the place whence it issued ($4\frac{1}{2}$ inches) prevented the possibility of placing a ligature on the vessel. A piece of sponge and some lint were wrapped around a canula, which was left in the bladder. There was very little more hæmorrhage; but the patient soon became restless—complained of much pain in the chest and abdomen—was ultimately affected with violent spasms, and died at 11 o'clock on the same night. On the following morning the vessels of the pelvis were carefully injected, and

the unusual distribution to which we before alluded became manifest.

From an extract and a drawing copied from the great work of Tiedman, the actual variety in question is clearly described by that celebrated anatomist. Winslow also describes the artery of the penis as not unusually passing along the prostate gland. Mr Harrison, the able demonstrator of anatomy in Dublin, and author of a very excellent work on the arteries, mentions his having occasionally observed the pudic artery, on one or both sides, to be very small, while the internal iliac was found to have given off a distinct branch running along the side of the bladder and prostate gland, and passing beneath the arch of the pubes with the dorsal veins, becoming the dorsal artery of the penis. '*Should such a variety, says he, exist in one who was to become the subject of the lateral operation of lithotomy, I fear this artery must be wounded.*' This prediction was unfortunately verified in Mr Shaw's case—but he who could be so diabolically inclined as to trumpet forth the accident in the form of a charge of unskillfulness against this meritorious young surgeon, and distinguished anatomist,

'Is fit for treason, stratagems, and spoils!
The motions of his mind are dull as night,
And his affections black as Erebus—
Let no such man be trusted.'

London Medico-Chirurgical Review.

Wound of the Abdomen—Protrusion of the Stomach. [Ed. *Journ. Med. Science.*]—The first of these cases is related by Mr Benjamin Travers. The subject of it was a female, aged 53, and the mother of nineteen children, who, in a fit of despondency, inflicted on herself a wound in the abdomen three inches in length, extending in a transverse direction, below the umbilicus, and entirely through the abdominal parietes. Six hours afterwards she was admitted into St. Thomas's Hospital, with the greater part of the large curvature of the stomach, the arch of the colon, and the entire large omentum, protruded and strangulated in the wound. On examination, the omentum was found to be detached from the stomach to some extent, and two wounds appeared on the last-mentioned viscus—one a peritoneal graze, half an inch in length—the other a perforation of its coats admitting the head of a large probe, from which a considerable quantity of mucus was observed to issue. The patient was very faint and exhausted when received—pulse 102, and irregular, disposition to hiccup, but little pain in the abdomen. By enlarging the wound, the protruded viscera

were, with much difficulty, replaced, a silk ligature having been first placed round the small puncture in the stomach. The external wound was then closed by the quill suture. Warm fomentations were applied, and the strictest abstinence enjoined. *2d day*, She had been sick in the night, the nurse having given her drink, contrary to orders. She is now free from pain—pulse 120, full, and soft—skin warm—countenance improved. Has pain on pressure of the abdomen. An enema ordered. In the evening a dose of castor oil, and 20 leeches to the abdomen. *3d day*, There was this day a considerable exacerbation of fever, and 18 ounces of blood were taken from the arm, and twenty more leeches to the abdomen. These means produced relief of the pain and fever, but the bowels were not yet opened. *4th day*, Has had two evacuations—pulse 98, full and soft—considerable tension of the abdomen—three more evacuations in the course of the day. *5th day*, Removed the sutures—wound united, saving at its right extremity, whence a serous fluid exudes in considerable quantity. *6th day*, Craves for food, and is allowed it. She perfectly recovered, and was discharged cured on the 23d December, about two months after the accident.

Mr Travers goes at some length into an historical research relative to wounds of the stomach, both *ab interno* and *ab externo*—for which we must refer our readers to the original record. The result of these researches, and an attentive consideration of the examples adduced (if credit can be implicitly attached to them all) would lead one to regard wounds of this viscus as much less dangerous than they are generally supposed to be.—But, for our own parts, we are somewhat more sceptical as to certain wonderful cases on record than Mr Travers. Does he really believe the story of the two negroes?—If so, Mr Travers will certainly be saved—for he has abundance of faith. ‘A lusty young negro man, returning home about noon, went into his house, when seeing some ripe plantains, he eat of them heartily. His father-in-law, about sixty years of age, coming home soon after, and finding the young fellow had eat up his fruit, pulled out his knife, and gave him a desperate wound in the upper region of the belly; *a vast gash being made in the stomach, insomuch, that the plantains which he had eaten burst out through the wound.* The old man immediately fled for it, and the young fellow’s companions hearing what was done pursued him. Perceiving them get ground of him, and suspecting their design was to kill him, he pulled out the same knife with which he had stabbed the other, and gave himself a desperate wound also in the upper region of the belly, his stomach being like-

wise seen, only with this difference, that the last wound was transverse, or from left to right, the first directly up and down; the old fellow was carried home, and lay in the same house where the other lay. This happened about noon, and Mr Forest the surgeon, came not to dress them till between four and five; *he stitched up both their stomachs entirely*, and their bellies too, except only a small hole for suppuration; a fever seized each of them, and held them about a fortnight. The wounds were brought to a good digestion, and in about a month's time the young fellow went abroad, but the old man, who was in most danger, lay something longer; however, they were both perfectly cured, and have been very well ever since, though it is above fifteen years ago.' 92.

Now it appears from the above record that Mr Forest made up for his tardy attendance, when he did arrive. In fact, he was, like the Devil, double diligent—for he sewed up the old man's stomach *entirely* although there does not appear to have been any wound in that organ! No wonder that the poor old fellow was longer in recovering than the graceless son-in-law, whose stomach he gutted of the plantains. In sober earnest, we think, Mr Travers would have done better by leaving out this wonderful story of the two negroes.

The case of Mr Dix (London Med. and Physic.) shrinks into insignificance, compared with some that Mr Travers has collected. A young lad was gored by a bull to the extent of about three inches on the left side of the abdomen, half way between the spine of the ilium and the border of the ribs. About three feet of intestines protruded, with a portion of mesentery and omentum. Mr Dix returned the protruded parts with as little delay as possible, cutting off a portion of lacerated omentum. One stitch was applied, and the dressing was completed by adhesive plaster, compresses and bandage. Proper position, quietude, abstinence, copious bloodletting, leeches, anodynes, injections, and gentle aperients conducted the case to a successful issue, and we have no doubt that Mr Dix obtained what he certainly deserved, great credit among the inhabitants of Long Buckly, Northamptonshire.—Many a worse managed case has made a man's fortune.

Before taking leave of the subject of gastrotomy, we may mention that, through the kindness of Dr Blundell, that able and zealous cultivator of medical science, we have had an opportunity of minutely examining the female on whom Mr Lizars operated successfully for the removal of a diseased ovary. The patient is now in very fair health, all the functions going on regularly (even menstruation) and her flesh progressively

increasing in firmness and plumpness. We particularly examined the abdomen, and observed the tremendous cicatrix extending from the scrobiculus cordis to the pubes. The abdomen is still fuller than natural, especially on the left side, where there are some remains of a tumour yet perceptible, both to sight and touch. But it appears that the size of the abdomen generally, and of this side particularly, has remained stationary for some months past, so that there is every prospect of the poor woman's health being sufficiently established to enable her to resume her usual avocations. She is in good spirits, and appears to have suffered nothing from her journey to London. We congratulate Mr Lizars on this unquestionable proof of the success of his operation—a species of proof which is far from being appended to the generality of similar operations hitherto recorded.—*London Medico-Chirurgical Review.*

History of a Child Deaf and Dumb from Birth, cured when Nine Years of Age. By M. MAJENDIE, in his *Journal*.—In May 1824, M. Deleau announced to the Académie Royale des Sciences, that he had succeeded in restoring the sense of hearing to a child who had been deaf from its birth. But though, having acquired the power of hearing sounds, a person thus restored is very far from having obtained the real pleasures of hearing sounds of every kind, the words we employ in addressing him, those which he endeavours to repeat, are sources of new and delightful sensations; but they are void of utility. He is ignorant of the advantages of speech, and can scarcely imagine, that by it he may be enabled to express his wants and his thoughts. M. Majendie having shortly stated the difficulties under which an individual thus circumstanced is placed, proceeds to give an account of the patient in question. The account is drawn from a report made by commissioners appointed for the purpose by the Academy.

‘ Claude Honoré Trezel, at this time ten years of age, born at Paris, of poor parents, was of that class of the deaf and dumb which cannot hear the loudest noises nor the most violent explosions. His countenance had little expression; he dragged his feet in walking, and his gait was tottering. He did not know how to wipe his nose, and he made his principal wants known by a certain number of signs.

‘ The operation by which his hearing was restored is not new. It consisted in the injection of air, or of different liquids into the cavity of the tympanum. The first few days after the development of hearing, was a season of continual delight to the child. Every kind of noise caused him an inexpressible

pleasure, and he sought for them with great eagerness. He was, however, some time before he perceived that speech was a means of communication; this he still attached, not to the sounds that issued from the mouth, but to the movements of the lips. Accordingly, for some days he thought that an infant of seven months old spoke, because he saw the movements of the lips. He was soon taught his error, and that the importance belonged to the sounds.

‘It happened, unfortunately, that he heard a magpie pronounce some words,—then, generalising this fact, he thought that all animals could articulate, and actually endeavoured to make a dog speak. He employed considerable violence to make him say, ‘papa,—du pain,’ the only words which he himself could pronounce. The cries of the poor animal alarmed him, and he desisted from his attempt.

The earlier period, after the development of hearing, wrought a considerable change in the physical state of Trezel. His walk became firmer, the mournful air of his appearance gay and smiling; he learned to wipe his nose, and ceased from dragging his feet.

‘A month elapsed, and Honoré remained almost in the same state. Absorbed by his new sensations and observations, he could only catch the different syllables that formed the words; and he was almost three months before he could distinguish compound words, and that of, the short and simple phrases. He required much time also to enable him to distinguish the direction of sounds. A person being confined in a room where there was an infant, and addressing him, it was with considerable difficulty that he could discover the person who spoke, and even then, it was rather from his eyes and reason than from the sound, that he discovered it. The organ of voice is composed of a number of different pieces; among which are muscles, bones, cartilages, and membranes. It would have been admirable, if, without any previous exercise, all these pieces could have acted in concord, so as to have produced the vocal sounds, and appreciable articulations; but this is not the case. The first sounds which Trezel pronounced without difficulty were *a*, *o*, *u*—the other vowels followed later; and the first words which he formed, were, ‘Papa, tabac, du feu.’ When he wished to pronounce more complicated words, he made great contusions of the lips, tongue, and all the parts concerned in articulation. By degrees he was able to pronounce the more difficult compound words. When advanced thus far, he believed himself on an equality with other children of his own age; and satisfied with himself, and proud of his

new situation, he despised the companions of his misfortune, and refused to see them. Notwithstanding, however, this vanity, Trezel made very little progress in pronunciation. A vast number of syllables escaped him, or he articulated them in an extremely defective manner. Perhaps he would never have liberated himself from this difficulty, had he not ceased to depend entirely upon his ears, and assisted himself by his sight. They wrote several words, and he pronounced them much more articulately, catching with considerable clearness the assemblage of the vowels and consonants, and their reciprocal influence. Another very remarkable fact may also be stated, viz. that the association of the sight, and the movements of the larynx, was always prompt and easy; while that of hearing, and the organ of voice, was always difficultly and slowly exercised. For instance, as soon as Honoré perceived the written syllables, he pronounced them, if at the same time they were repeated to him; but if the writing was removed, the syllables were in vain articulated in the most distinct manner: he could not follow them.

‘ His pronunciation is very defective, and the *r* rolls disagreeably upon his tongue, and the differences in accent appear unknown to him. He exhibits also a phenomenon which has engaged the attention of the commissioners. When they spoke a word distinctly to him, he repeated it immediately. But if his instructor wished to address his understanding, signs and expressions of countenance were employed.

‘ It would have been thought, that after having acquired a new mode of expressing his wants and ideas, he would have neglected that which had hitherto served him, and which is inferior to speech; but hitherto the contrary has happened. The natural language of Honoré, *i. e.* by signs, instead of going gradually into disuse, and being replaced by speech, has gained rapidly a striking perfection, much superior to what he possessed before he had acquired the sense of hearing.

‘ In recapitulation, Honoré Trezel, who was completely deaf, so as not a year ago to be able to hear the loudest noises, understands all kinds of noises, knows when they come from a distance, distinguishes their character, avoids carriages and horses, and proceeds to open the door when any one knocks. He is pleased with music, and can appreciate and repeat all the articulations of the French language. He obeys the spoken commands of his instructor; but does not yet understand sufficiently other people; and he learns, analyses, and repeats a number of phrases at length.’—*Journal de Physiologie, par Majendie.* Juillet 1825.

REVIEW.

ART. VII.—Anatomie Pathologique. Dernier Cours De Xavier Bichat, d'apres un manuscrit autographe De P. A. Béclard ; Avec une Notice sur la Vie et les Travaux de Bichat. Par F. G. BOISSEAU. A Paris, 1825.

Morbid Anatomy ; being the last course of Xavier Bichat, from a manuscript in the handwriting of P. A. Beclard ; with a Notice of the Life and Writings of Bichat. By F. G. BOISSEAU. Paris, 1825.

THIS work made its appearance in Paris during the latter part of the last year, and carries with it intrinsic evidence of its being the production of the illustrious man whose name it bears. It is marked throughout by his peculiarities of manner, both of writing and thinking, possessing traces that can hardly be mistaken, of the same vigor of intellect that characterizes his other works, and exhibiting numerous instances of his happy talent of illustration. This, like all his other writings, we think is remarkable for great distinctness of object and perspicuity in the explanation of it ; he comes immediately to his subject, without permitting his attention to be diverted from his purpose, and pursues it in all its ramifications.

Besides the internal evidence, however, there is abundance of another character to satisfy the most sceptical, that this is really the production of Bichat ; for it was found in the handwriting of Beclard, among his papers, and on the manuscript he had written the title we have given above. If our readers should still entertain any doubts of its authenticity, they will be dissipated, we are confident, by an examination of the contents of the volume. All that we can do, is to give them an abstract, which, we hope, will be sufficient to induce them to peruse the work itself.

The author has pursued the same mode of investigation, in relation to morbid anatomy, that he has heretofore done with regard to healthy anatomy ; so that the present treatise may be regarded in the light of a sequel to his great work on physiology. After a few preliminary remarks, he makes some observations on post-mortem examinations, on the method to be

adopted in investigations of this kind, on the changes in the fluids from disease, and on inflammation; and then proceeds to consider the morbid affections of the different systems, beginning with the serous, and the alterations of structure which they produce. In the introduction, he observes, that 'diseases may be included in two classes, viz. those which affect the general habit of the body, and those which attack only a single organ. The first are not the subject of morbid anatomy. All kinds of fever produce a general affection, and, for the most part, no one organ in particular is affected. The knowledge of general diseases differs essentially from that of organic diseases; for that of the first, observation alone is sufficient; for that of the others, on the contrary, there must be both observation and post-mortem examinations.'

These remarks are important, highly so, especially to practical men, and should be constantly borne in mind by those who are studying pathology, otherwise the results of their investigations will frequently be far from satisfactory. Too much has usually been expected from post-mortem examinations; the remark of Baillie, and we can cite no higher authority on this subject, that 'there are some diseases which consist only in morbid actions, but which do not produce any change in the structure of parts,' is frequently overlooked, or not taken into account, and hence the disappointment which is so often experienced by those who are engaged in pursuits of this character. It should be recollected, that morbid anatomy will throw but little, if any, light on several diseases that are characterized by symptoms of great violence, and the most that can be done is to be able to discriminate between these and those which can be elucidated by it.

After some very useful observations on the different appearances which bodies exhibit in consequence of the manner in which death was produced, the author proceeds in the next chapter to point out the course which he has adopted in his investigations, and as this gives a general outline of his plan, we shall present our readers with the whole of it.

'We shall first divide the examination of diseases into two parts. In the first, we shall notice the affections peculiar to each system in particular, and the modifications which general diseases undergo in these systems. In the second, we shall consider these diseases in the different organs that are the seat of them; and, for the sake of method, we shall proceed in the order of functions.

'Each system has an order of functions that is peculiar to it, whatever may be the part it occupies. Thus phlegmon or inflammation of the cellular texture, is always of the same nature, whether seated in the extremities or the trunk, and the pus that it produces is always the same. Whatever may be the place in which the se-

rous membranes are found, their diseases are similar; they alone are susceptible of adhesions. The cutaneous system is the exclusive seat of certain affections, such as herpes, variolous eruptions, and inflammatory pustules. This observation has already so struck physicians, that they have formed a particular class of the diseases of the skin. From all this we see, that it is essential to examine the diseases of the systems separately.

‘ In examining diseases in the manner first named, we shall disregard entirely the systems, which, together with the one that is affected, concur to the formation of an organ. Hence this consequence is established, that each system may be affected by itself. The examination of dead bodies proves it, since it shows us, that almost all local diseases have their seat in one particular texture of the affected organ.

‘ Let us take, for example, the lungs. This organ is composed of the pleura, of the pulmonary texture and of the internal membrane. In pleurisy, the pleura only is inflamed; the pulmonary texture and the mucous membrane are sound. In pneumonia, on the contrary, the lungs are diseased, whilst its two membranes are healthy. So catarrhal coughs are confined exclusively to the mucous membrane, whilst the parenchyma and the serous membrane are in a natural state. This example may serve as a term of comparison for all the other organs.

‘ The affections of the serous membranes extend to all their parts; thus the ancients were mistaken in supposing that chronic enteritis was exclusively confined to the external coat of the intestines; it always extends to the whole peritoneum. At the sick bed, however, this manner of describing diseases would seem to be incorrect, since, in a pretended simple affection of a texture, the whole organ appears to be affected. It is thus that in inflammation of the peritoneum, which covers the stomach, vomiting occurs. We know not how to explain a sympathy that is so constant; but that the affection is confined to a single texture is not less certain.

‘ To understand diseases thoroughly, regard must be had to three kinds of symptoms. The first are confined to the affected organ, the second depend on the neighbouring organs, and the third are general. Thus, in pleurisy, the local pain of the side, which belongs to the pleura, should be ranked in the first class; the oppression and difficulty of breathing, which belong to the lungs, are comprehended in the second; and, finally, the state of the pulse and that of the secretions, constitute the third.

‘ In chronic diseases, the principle which we have established respecting the particular affection of the systems often seems to be false, when these diseases have been sufficiently severe to occasion death, the substance of the organ is usually found to be affected and diseased. But this general disease is always owing to a principal affection which is developed in one of its textures, and the state in which the others are found after death is consecutive. Thus, in cancer, the disease commences by a slight, vacillating tumour in the

cellular texture of the breast; the part soon swells, and the tumour becomes adherent; its progress continues, and the muscles ulcerate; the bones finally become carious, and the state, in which the disease appears towards its termination, is only the consecutive effect of the first affection. This example is sufficient to show the progress of all chronic diseases, both those which are on the exterior and those whose phenomena take place on the interior. In cancers of the stomach, it often happens that the affection extends to the whole peritoneum, by means of that portion which covers this organ; sometimes also in this case, the liver becomes tubercular. It is an essential difference between acute and chronic diseases, that the symptoms of the first are produced by the powerful affection of a single organic system, whilst, in the other, they are caused by the slow alteration of the whole organ. All chronic diseases are not propagated with equal ease. Cancer is very susceptible of it, whilst arterial ossifications never extend.' pp. 11—15.

He next speaks of the changes which the fluids undergo in diseases, which he believes to be as frequent as those of the solids, though much less known. The fluids he divides into three classes; the circulating, the secreted, and the exhaled fluids. The alterations of the blood from disease are very numerous. The *quantity* of this fluid is various after death, a circumstance which arises from the previous disease. Though the *colour* of the blood is the same in all dead bodies, it is very different during life, according to the morbid affection under which the body is suffering. The variety in its *consistence* also is remarkable; some diseases render it very fluid, while others have an opposite effect.

We are inclined to think, that too little attention has of late been paid to the state of the fluids in disease; in fact, they have been almost entirely overlooked by pathologists, ever since the doctrine of the humoral pathology was overthrown. We are glad that Bichat has called the attention of the profession to a subject of so much importance, and which has been consigned to such unmerited neglect. That the fluids of the body are oftentimes affected by disease, is now again, we believe, beginning to be admitted, whether primarily, as maintained by Boerhaave and other humoral pathologists, or only through the intervention of the solids, as was held by Hoffman, is perhaps not determined. That they do undergo alterations from morbid action going on in the body, is an admission sufficient for all practical purposes, and no one is better able to point out the precise changes that are produced in them than our author. He adverted to this subject in his General Anatomy, but has noticed it in the present work more in detail, though not so fully as might have been wished.

The chapter on Inflammation, which is the next in course, is every way worthy of the subject, and embodies in a small compass much valuable information. A very accurate description of the progress and termination of this disease is given, and then the varieties of it are pointed out, which are those that arise from its being complicated with other diseases, and those which are the effect of the particular system which is the seat of it. We have not room for the whole of this chapter; and it is so connected, that it is impossible to extract any portion of it so as to render the whole intelligible, and it would be difficult to make an abstract of it that would be more condensed than the chapter itself.

After disposing of this subject, he proceeds to treat of the diseases of the Serous System; and under this head he notices the acute and chronic inflammation of the serous membranes, the disease of the pleura, the pericardium, peritoneum, tunica vaginalis and tunica arachnoides. The diseases of the mucous system are next examined, then those of the cellular texture, then those of the lungs; next those of the glands, and then those of the cutaneous system, such as erysipelas, burns, measles, small-pox, scarlatina, herpes, &c. &c. Next come the diseases of the muscles of organic life, then those of the muscles of animal life, then the diseases of the arterial, venous, nervous and absorbent systems, and then those of the fibrous, synovial, cartilaginous, medullary, osseous, pilous, and finally, those of the epidermoid systems.

From this slight sketch some idea, though perhaps an imperfect one, may be formed of the plan of the work, and from the extracts we have given, our readers may judge something of its execution. If it does not add to the fame of Bichat, it certainly does not diminish it, and this, in our estimation, is praise of no ordinary character. For we regard him as one of the greatest ornaments of our profession, and believe that he has done as much as almost any individual to enlarge the boundaries of medical science. No one of modern times, excepting John Hunter, can be compared with him, either in regard to the power of his mind, the extent of his labours, the value of his productions, or the untiring zeal and perseverance with which he examined every subject. Nor do we think it possible to compare with any degree of fairness Hunter and Bichat; for the former enjoyed comparatively a long life of study and improvement, while the latter completed all the works on which his fame now rests, at an age at which the other had scarcely published any thing. Cut off before he had completed his thirty-second year, at a period when but few men have done

much as medical authors, what would he not probably have accomplished, if the usual term of human existence had been granted to him? As it was, he published the surgical works of his master, the illustrious Desault, in three volumes; his great work on General Anatomy, in four volumes; his Treatise on Life and Death, and his Essay on the Membranes; and he left two volumes of the Descriptive Anatomy complete, besides the work on Morbid Anatomy now under notice. In addition to all this, he was extensively engaged in private practice, actively occupied with the duties of physician to a public hospital, crowded with patients, and lecturing to large classes of students. His ardour in the cause of science, as is well known, cost him his life; and he was snatched away at a moment, when he appeared most capable, from his increased experience and extensive acquirements, of benefiting the world. But as it is, he has left memorials of his greatness, that will long abide, and every successive year since his death has added to his renown. It was truly said of him by Corvisart, in announcing his death to Bonaparte, then first Consul, that 'no one had ever done so much, or had done it so well, in so short a time.'

ART. VIII.—*A Treatise on the Physical and Medical Treatment of Children.* By WILLIAM P. DEWEES, M.D. Member of the American Philosophical Society of Philadelphia, and of the Philadelphia Medical Society; Lecturer on Midwifery, &c. Philadelphia: H. C. Carey and I. Lea. p. 496.

(Concluded from p. 173.)

Diseases of Children.

IN the first chapter of this part of his work, the author treats of the want of respiration in new born infants, and the treatment of the umbilical cord after delivery. He agrees with Mr White and others, that the premature tying of the cord is very often, if not always, injurious. This operation is considered premature by these writers, if done before the pulsations of the umbilical arteries have ceased. The rule has no regard to the circumstance of the pulmonary circulation having been established, however completely. The cord is not to be tied in this case, while pulsation continues, any more than in that in which respiration has not occurred. With regard to the last, there is no difference of opinion. As to the first there is. Some practitioners are in the habit of tying the cord when respiration is well established, and they have met with no evil consequences

from the practice. And why should there be any? Of what use can the placental circulation be, when respiration is established? Is it very important that the heart should be made to continue a peculiar circulation, which in the order of nature must soon cease, while a new function has given a new course to the blood, and which is to continue to be its course through the remainder of life? Is there no hazard of allowing this double function to continue indefinitely in feeble children for instance, and does not such continuance interfere with the new circulation; and, finally, may it not, in some cases, interfere so far with this, that it may never be perfectly established, but the heart as it is known now and then to do, retain some of its foetal peculiarities, in adult life? These questions are asked, not with any view to an answer, but as probably containing some of the reasons which have led those who differ from Dr De-wees, to tie the cord when respiration and the pulmonary circulation are well established, without regard to the pulsations of the umbilical arteries.

In the case where respiration has not occurred at all, or is just beginning, there can be but little doubt that it will be proper to wait for this function to begin and to establish itself. It is sometimes prevented by congestion of blood in the brain, or elsewhere, by pressure during labour, particularly of the cord about the neck. In this case, dividing the cord before tying and allowing it to bleed, has been very beneficial. A loose ligature may be about the cord, in readiness to be tightened, when the purposes of the bleeding are answered. The child may not breathe from other causes. Thus the mouth, fauces, or trachea, may be obstructed by mucus, and the entrance of the air to the lungs be prevented. For the two first of these cases, Dr D. recommends the removal of the mucus by wiping the parts with a fine dry rag. For the third, he advises that the child should be held with its head down, that the mucus may thus run out of the trachea and be removed. This, with shaking the child, it is said, has been abundantly successful. Artificial inflation, the physician applying his mouth to that of the child, is indispensably necessary to the success of any other efforts that may be made. Occasionally, infants lie perfectly still after delivery, with a very pale skin, and manifesting no signs of life whatever, excepting the pulsations of the heart and umbilical arteries. These seem to have suffered nothing from compression, either from the cord about the neck or of the head by the pelvis. The face is neither turgid nor red. There seems no obstruction of the air-passages whatever, or in any part of their course, for artificial inflation is made without any difficulty. We remember very distinctly a case of this kind,

which occurred very early in our practice, in which respiration did not occur for more than half an hour at least after delivery. The placenta having come away naturally, and the foetal circulation continuing perfect, the infant and placenta were placed in a tub of warm water, rather above the natural temperature of the body. The circulation continued as before, notwithstanding artificial breathing was employed as regularly as it could be, along with the other ordinary means of animation. At length breathing began, and the infant did well. This case reminded us of the experiment of Buffon. It differed of course in this, that the head was kept above water, and that every attempt was made to establish respiration. Like his experiment, it would seem to show, that the connexion between the uterus and placenta are less important as it concerns the circulation, and the changes which are alleged to be produced on the foetal blood by the latter, than some have thought.

Under the head of *syncope* or fainting, in the second chapter, the author has nearly described the state of infants just indicated. There is this difference, however; in his the foetus is imperfectly developed, or premature. Great care is required here, and no caution seems better enforced than that of rest after respiration is in a measure established. The infant is not to be washed nor dressed for some days. Purgatives are to be avoided, and the diet is to consist of a little wine whey. Dry warmth, in opposition to bathing, is much extolled. The author, in the first chapter, strongly dissuades from the use of warm bath in cases of still-born infants. Dry warm flannel is preferred. He has seen, he thinks, bad effects from the first. We do not recollect similar ones from the same means, and have always employed it. We should feel disposed, however, from his remarks, to adopt his method, for it is certainly a more convenient method of applying warmth than the other, and with proper care a due temperature may, perhaps, be better presumed by its use.

We have, in the following extract, another case of feeble and suspended respiration in infants.

‘ It now and then happens, that a child may be rather feeble when first born, but recover its powers by proper attention, and every thing giving promise of doing well—when of a sudden, it will become pale, flaccid, cold, with a long interval between each breathing, and at last respiration appears to stop; the fingers and hands become blue, or black; the lips livid, and the eyes fixed, and but half closed; the pulse extinct—in a word, looking “ the image of death.” After remaining in this condition for a short time, a slight convulsive motion will appear to play about the mouth; an imperfect inspiration will be taken, followed by an expiration, attended by a peculiar noise; the lips become less livid, as do the hands and

nails; the eyes move languidly, and the pulse may now by close attention be perceived, like a vibrating thread, at the wrist; an attempt to cry is now made, but the sound is so feeble, that it can be heard only at a very short distance—and this finishes the paroxysm.

‘ After the “fit,” as it is called, has terminated, the child will appear languid, and uneasy, for some time; it will generally swallow, if any fluid be presented to it, provided it be not too soon after the paroxysm. A discharge from the bowels almost always takes place during the “fit,” of a small quantity of a very green fluid. These spells are repeated at longer or shorter intervals, unless the disease be arrested by the influence of remedies, or death closes the scene.’ p. 267.

The following treatment is given in a case—

‘ We caused flannels to be wrung out of quite warm whiskey, and applied all over its little body; small sinapism were placed upon the temples; a drop of brandy was insinuated into its mouth, and its nostrils were wetted with a little sharp vinegar. After these applications were made, which must certainly we think have occupied five minutes, the little creature began to discover signs of returning animation, contrary, we confess, to our calculation. The return, as it were, to life, was pretty much in the order stated above; the child however was found very much exhausted, and it was some time before it could swallow.

‘ The bowel complaint was now increased greatly, and the poor child nearly exhausted. It had no return of syncope while we staid, which was about an hour: it could however be scarcely said to be alive. We directed the whiskey stoups to be continued; and a weak chalk mixture with a little laudanum, was ordered to be given every hour, or until the condition of the bowels should be improved. A little wine whey, with an equal quantity of cinnamon tea, were directed to be given as often as the child could swallow them.’ p. 268.

A distinct chapter is devoted to the management of the bowels of new born infants. It is very important that the meconium be duly purged off. If it remains, it produces much distress and many alarming symptoms. Sometimes these occur eight or ten days after birth, and there may be no suspicion of the exciting cause.

‘ A child born healthy, had its bowels liberally purged, as it was supposed, by the ordinary remedies. It remained perfectly well for several days, and had taken the breast freely. At about the eighth day, the eyes and skin appeared rather yellow, though its urine was not altered in colour. Its bowels were a little affected, and had frequent, but very sparing stools; it hiccupped very frequently; its skin was dry and hot; it became very restless, and refused the breast, though evidently very thirsty, as it would receive with greediness, water, or any other thin fluid, from a spoon. It would often

start, and at such times would move its limbs violently for half a minute together. Its tongue was very white, and loaded with a substance resembling a stratum of coagulated milk. It did not puke, though evidently distressed at stomach, as it would frequently gag, but could get nothing up.' p. 270.

The treatment consists in the persevering use of cathartics, till the offending cause is removed. We may be deceived by the appearance of healthy dejections at first, under the cathartic course. Black ones will, however, at length come away, and with these relief will occur, and the entire removal of the meconium will be followed by cure.

Of Jaundice.—The disease is distinguished from the sallow state of skin, which is not unfrequently noticed in new born infants. It does not seem that that is owing to the bile. The symptoms of jaundice at this age do not differ from those of maturer life. Some difference of opinion exists between the author and other writers on the treatment. Dr Dewees objects to the exhibition of emetics so much recommended in the beginning by Burns, Underwood, and others. He has found them decidedly injurious. They leave the stomach so irritable, that other medicines are not borne at all, or but very imperfectly. In place of an emetic, the following course is recommended, along with the use of the warm bath. A case is given, in which the latter used for five minutes every hour, and an ounce of sweet spirit of nitre, were followed by recovery under very unpromising circumstances.

' When we find symptoms of jaundice, that is, yellow skin, eyes, and urine ; we begin by giving small doses of castor oil ; that is a small tea-spoon-full every two hours, until it purge freely. If upon the inspection of the evacuations, we do not find bile in them, we follow up, the purging, the next day, by giving calomel in very small doses, until a cathartic effect is produced. This may, and does require sometimes, two or three days perseverance in the calomel, aided by small doses of soda, supersaturated by carbonic acid gas, before the bowels are moved ; for it must be recollectcd they are most commonly very torpid. We have said we give calomel in very small doses ; the following is our formula.

R. Calom. ppt. gr. iij.

Sacch. alb. gr. vj.

M. bene, div. in. xij.

' One of these to be given every two hours until they operate. They are best exhibited in a small drop of thin molasses, washed down by the solution of soda, in the proportion of two scruples to eight ounces of the carbonated water.

' A tea-spoon-full of the solution of soda may be given frequently, as a drink. Should the calomel at any time after exhibition, pro-

cure biliary evacuations, it should be desisted from or given less frequently. But should it not, it must be persevered in, unless the bowels become too much irritated; in this case, they must be appeased by laudanum, in quarter drop doses, every two or three hours until the effect is produced. During this period, however, the solution of soda should be continued. We have thought advantage has been derived, by bathing the abdomen with warm brandy, especially if this part be preternaturally hot or cold. In doing this, however, a caution must be suggested, that the parts be not unduly pressed, or rudely handled, under the impression, that this is essential to its efficacy.

‘Should diarrhoea with biliary looking stools, supervene, the calomel must be stopped, and laudanum must be given as directed above. During the whole of this time, the child should receive its mother’s milk as often as it well can, by sucking, if able; or by the spoon, the milk having been previously milked out.’ p. 274, 275.

Erysipelas is one of the formidable diseases of infants. Some have thought it was confined to very early infancy, but Dr Dewees, as well as Underwood, have seen it much later, as late as the sixth month. It attacks most parts of the body, but especially affects the nates, the neck, the small of the back, and face. ‘It usually begins by a spot of uncertain size, and ill defined extent.’ Much general irritation attends, and marks of great suffering are to be noticed. Vesication occurs at different periods from the beginning of the disease. With this, the disease itself rapidly spreads, and the danger becomes imminent. The discharge from the vesicated parts resembles that which ordinarily occurs in the same disease in adults. If the cellular membrane be implicated in the inflammation, the destruction of this texture is rapid and extensive. Dr Dewees has seen it extend from the lower point of the left scapula to the base of the sacrum. Adhesion does not occur in this inflammation, and the ill-formed pus will be found occupying the whole extent of the disease.

‘Notwithstanding the apparent irregularity of this species of inflammation, it has four distinct stages; 1st, inflammation without vesications; 2d, with vesications; 3d, with vesications and suppuration; 4th, gangrene. There is something very peculiar, nay sui generis in this inflammation; and on this peculiarity does its danger very much depend; but our limits do not permit us to describe them but in very general terms. 1. Its erratic disposition—as it may in an instant almost leave the part it occupied, to seize upon another, however remote, or important that part may be. 2. Its disposition to vesicate. 3. The rapidity with which it runs on to its own peculiar suppuration, for it is without any provision, by the effusion of coagulating lymph, to limit its extent. 4. To its strong tendency

to gangrene, seeming at once to kill the skin and cellular membrane, by the force of its previous inflammation.' p. 277, 278.

The author next notices the different methods of treatment recommended by different writers. He objects to bark, carbonate of ammonia, and external cooling or stimulating lotions. The following contains his own method. In addition to the external treatment which our quotation contains, purgatives, or internal astringents are recommended as circumstances may require, with tonics and stimulants at the close of the disease. How far the strictly antiphlogistic treatment, including venesection, as advised by Dr Duncan, in a paper in a recent number of the Edinburgh Journal of Medicine and Surgery, may be useful, we are not prepared to say.

' It is probable, that erysipelas may have a number of counter-agents; but there are very few, we believe, yet ascertained. In the time of Ambrose Paré, blisters were employed to interrupt the progress of this inflammation, both as regards the extent of surface over which it might be disposed to travel, as well as the terminations of two of its stages in either suppuration or gangrene. This remedy, however, was either forgotten or laid aside, for nearly two centuries, because the modus operandi of the application could not be explained. To Dr Physick do we owe its revival, the importance of which can only be appreciated by those who have witnessed the almost wonder-working operation of this remedy. We have frequently succeeded with it, both in the adult and in the child; and can most safely recommend its application, when the inflammation attacks such parts as can readily be covered with a blister.

' The plaster should be of such size as will rest with certainty upon the sound skin—if this precaution be not taken, its application will avail but little. When the sound skin is well vesicated, the plaster is to be removed, and the part to be treated as if a blister had been used for any other purpose.

' It however very often happens, that a blister will be inexpedient, from the peculiar location of the disease; in such case, we use the strong mercurial ointment (without turpentine) by covering the inflamed, as well as the sound skin, with a coat of it; and when it is removed, or becomes dry, it is renewed by a fresh application. We use this ointment differently, however, in the several stages of this inflammation; we shall therefore describe our method; and,

' 1. Where the part is inflamed, but not yet vesicated. When we see the inflammation in this stage, we cause the whole of the reddened part, as well as a portion of the sound skin, to be covered with the ointment; which is to be renewed, when the part is deprived of any portion of it.

' 2. Where the part is vesicated, but the vesicles not opened. In this case, we cause the vesicles to be carefully opened, and the ointment applied as just directed for the first condition.

‘3. Where the vesicles have opened spontaneously, and the part has become encrusted; but the inflammation is spread to either a considerable or limited extent. In this case, we direct the ointment to be applied only to the surrounding inflamed margin, and on a portion of the sound skin.

‘4. Where portions have proceeded to suppurate, yet a part of the surrounding skin is inflamed. Under such circumstances, we open the collections of matter as early as possible; and apply the ointment to the margin, as above directed.

‘Such is the efficacy of the mercurial application, that it almost immediately arrests the further progress of the disease; therefore, when practicable, it should be had recourse to early.

‘We know but one objection to this powerful counter-agent—the patient sometimes becomes salivated. This however seldom or never happens with young children, who are most obnoxious to the disease for which it is prescribed. In adults, on this account, we sometimes prefer the blister.’* p. 279, 280.

Suppression [retention?] of urine.—Suppression of urine is occasionally met with in very early infancy, and it sometimes continues till it becomes very alarming. It now and then occurs in the newly born, and without some care may be overlooked. The catheter was introduced with (in case of a child 10 days old) temporary benefit. The suppression seems to have existed for about five days before the catheter was employed. Death occurred three days after, notwithstanding great care was taken to prevent new accumulation, and various other means of recovery used. Eighteen ounces of urine were drawn off by the first introduction of the instrument. Dr Dewees, in remarking on this case, very candidly states it to be his opinion, that if the catheter had been used twenty-four, nay, twelve hours sooner, the life of the child might have been saved; ‘but as there was a constant assurance that water passed, no suspicion was entertained of the state of the bladder, until all the mischief was done that could well happen from its fulness.’ p. 284.

Children are liable to a disease quite opposite to retention; this is an excessive discharge of urine. Incontinence is another disease of the urinary organs, which, to say the least, is a very troublesome complaint. A case of the latter is related by

* It would seem, that the origin of the mercurial treatment is peculiar to this country; and the honour of the discovery is claimed by Drs Little and Dean. Their claims are urged with such equality, that there would be a risk of doing injustice to one, by admitting the proofs of the other.

It appears, that this is not the only mercurial preparation that has been useful in this complaint. A solution of the corrosive sublimate, in the proportion of one grain to the ounce of water, Dr Schott, of this city, informs us, has been found equally efficacious.

Mr Hyslop, in the sixth volume of the Medico-Chirurgical Transactions. It occurred at about the fourth year of the patient's age, and had continued undiminished till his thirteenth, when Mr H. saw him. It was cured by extreme pressure. We shall extract his method of applying it. 'I selected,' says Mr H., 'a bougie of a size large enough to fill his urethra, from which I cut about two and a half or three inches. Having placed that on the outside of the under part of the penis, on a line parallel to the canal, with its point projecting a short way beyond the glans, to avoid as much as possible any pain from pressure, I passed straps of adhesive plaster around (first at the point of the penis, and afterwards continuing strap after strap the length of the piece of the bougie,) and pulled them so tight as to press the bougie close in upon the urethra, so that no space was left by which urine might pass.'

'This was done at ten o'clock at night, and at three o'clock he called me out of bed, (the patient came and resided with Mr H. while under treatment) having a great desire to pass urine. I removed the straps, &c. and when he had emptied his bladder, I applied others in the same manner. The next desire for this evacuation was about seven o'clock, and the next again at eleven o'clock in the forenoon. After each evacuation the pressure was renewed without any unpleasant symptom, and in three days he was cured of incontinence of urine.* This patient had made use of various remedies, without any diminution of the incontinence, and with all its disgusting accompaniments, for nine years, and was entirely relieved by pressure in three days.'

The excessive discharge of urine, which forms the other disease of the urinary organs above named, is of a more intractable, and not unfrequently of a fatal character. This affection has been recently described, with its treatment, by Dr R. Venables, in a work on diabetes.† He calls it the *Tabes Diuretica*, or urinary consumption in children. We have not yet seen this work, but think some extracts from it, contained in the March number of the London Medical Repository and Review, will not be unacceptable to our readers.

"I have often observed children," he states, "to all appearance very healthy up to a certain period, when suddenly the constitution changes, the child emaciates, its health declines, and without any obvious derangement sufficient to account for

* Vid. op. cit. p. 110.

† A Practical Treatise on Diabetes: with Observations on the *Tabes Diuretica*, or Urinary Consumption, especially as it occurs in Children; and urinary Fluxes in general, &c. &c. By Robert Venables, M.B. &c. &c. London, 1825.

the gradual depravation of health, at last dies a most miserable object." The head he generally found free from pain, and the functions of the brain regular: the respiration was natural, the bowels free, and the secretions from them healthy. Nothing, he was generally told, appeared remarkable in the urine; but it was after farther inquiry stated, that it was discharged in very great abundance; but this was considered as the consequence of the inordinate quantity of fluid taken by the child. Having thus ascertained that the emaciation was attended with an excessive discharge of urine, he had little hesitation in referring the disease to the kidneys; and on a minute inspection after death, he discovered morbid appearances in these organs sufficient to account for all the symptoms.'

The symptoms, according to Dr V., are as follows:—"The disease seldom appears until after the child has been weaned;" the exciting causes being seldom applied until after this period. It loses its usual flow of spirits, is dull and inactive, and after a little time gradually emaciates. The skin becomes harsh, dry, and flabby, and seems to hang loosely about the body: the temperature of the surface is much elevated. In the early stages of the disease, the bowels are regular, and the tongue natural: but as disorder proceeds, the bowels act irregularly, and the tongue becomes covered with a coat of mucus. Sometimes the stools are of a greenish hue; at other times they seem natural, but become greenish some time after they are passed. At a more advanced period, the abdomen is full and distended; and this preternatural distention frequently leads to the supposition of mesenteric disease,—an opinion which seems farther confirmed by the progress of emaciation. The pulse, from the first, is generally accelerated, and has a hard wiry feel. "The most remarkable symptom, however, although it frequently escapes observation, is the inordinate discharge of urine. This discharge increases in quantity so gradually, that it is not usually noticed." By the time it has become more remarkable, great thirst prevails; and hence it is neglected, the parents generally considering the excessive discharge of urine as a necessary consequence of the excessive consumption of fluid. In some cases the urine appears quite limpid; in others it is milky, or like a mixture of chalk and water; sometimes it is of a pale straw colour; and in one case, Dr Venables saw it of a green colour. Its specific gravity is much increased; and it coagulates by heat, and the addition of the usual reagents.'

We can afford room only for the following, respecting the treatment. Having spoken of bleeding, general and local, and blistering over the kidneys, he mentions the use of the phosphates;

which have been so much recommended in diabetes, on account of their diminishing the urine. He prefers the phosphate of iron. The following relates to this subject. It is preceded by some remarks on the phosphate of soda, which has long been recommended as lessening the action of the kidneys, to the use of which he offers some objections. 'But, independently of these objections, phosphate of soda is too apt to excite the bowels, and pass off by stool, before its effects upon the kidneys have been secured. These facts led me to the conclusion, that some of the metallic phosphates might be advantageously substituted for those with an alkaline base. The tonic and astringent properties of iron and zinc pointed them out as the best suited to the object in view. I selected iron* for my first trial, and I have felt so satisfied with its powers, that I have not attempted any farther investigation. I have been really struck with the efficacy of the phosphate of iron in excessive discharge of urine. The quantity is rapidly reduced under the use of this salt, and indeed its qualities sensibly altered. The bulimia, which also attends on diabetes, is reduced, and the powers of digestion invigorated and increased.'

'The phosphate of iron is readily formed by the admixture of solutions of sulphate of iron and phosphate of soda. The resulting salts are sulphate of soda, which, being soluble, passes through, while the insoluble phosphate of iron† remains on the filter.'

'Phosphate of iron may be given as an astringent, in doses of one or two grains, which may be gradually increased to a scruple or half a drachm, three or four times in the day. In children, smaller doses should be given; but the exposition of the rules for apportioning them according to the ages of patients, belong to a different branch of medicine. It may be observed, that after a continued use of any medicine the dose must be gradually increased, or otherwise its effects will begin to diminish. Sometimes it is useful to suspend the use of the

* 'This metal,' says Dr Murray, 'is the one which has been regarded as most salutary to the animal system. It exists as a constituent part of the blood and other varieties of animal matter, and it acts as a powerful tonic, increasing the power of digestion, quickening the circulation, and causing the blood, it is said, to assume a more florid hue, promoting the secretions, or restraining them where they have been morbidly increased.'—*Materia Medica*, vol. i. Art. **FERRUM**.

† 'In rickets, carbonate of iron is usually combined with the phosphate of lime, and the combination is found more efficacious than either singly. I have no doubt that decomposition takes place, for in the animal laboratory, the laws of chemical affinity are set at defiance, and those compounds evolved which are most suited to the living purposes.'

‡ 'This salt and the oxyphosphate have been highly extolled by Mr Carmichael, as remedies in cancer.'

medicine for a short time, and then to recommence it again. In this way the susceptibility of the system is often revived, when it would not be safe to attempt the same object by any other means.'

But to return to our author. The next chapter is 'of aphthæ.' Dr D. was formerly disposed to consider this as a secondary disease, dependant on some state of the stomach. He has reason to think differently on this subject now, and offers several considerations in support of the opinion, that it is an idiopathic affection. He differs from Dr Good about its extent. Dr G. says, 'the fauces become next affected, and its descends thence through the œsophagus into the stomach, and travels in a continuous line through the entire course of the intestines to the rectum, the faeces being often loaded with aphthous sloughs.' Dr D. doubts this statement, and gives a dissection after death from genuine aphthæ, in which no trace of the disease was to be discovered beyond the cardiac orifice of the stomach. He agrees with Dr Good, in considering the disease occasionally epidemic. We extract the following on the treatment.

'The treatment of this disease should always be commenced by a regard to the stomach and bowels; there is, we believe, a superabundance of acid, which should be destroyed by the use of absorbents. Should there be no diarrhœa present, we are almost certain of finding whatever evacuations there may be, of a green colour; and when this is the case, small doses of magnesia should be given, until the bowels are purged; and this may be repeated pro re rata—should however the bowels be urged to frequent ejections of a sparing watery kind, and especially if attended with pain or straining, the following formula we have long adopted with entire success.

R. Magnes. Alb. Ust. gr. xij.
Tinct. Thebæic. gtt. iiij.
Sacch. Alb. q. s.
Aq. Font. 3j. M.

Of this a tea-spoon-full is to be given every two hours until the bowels are more tranquil. Or if very frequent green stools are evacuated, we may substitute a drachm of prepared chalk for the magnesia, or if there be no fear of the diarrhœa weakening too much, a scruple of the prepared chalk may be added to the twelve grains of the magnesia: by this combination, we ensure the destruction of the acid, and prevent the lax from being too soon checked. We have found very often a great advantage from equal parts of lime water and milk, where green stools continued; but no diarrhœa—a tea-spoon-full of this mixture may be given four or five times a day.

'When the disease has proved obstinate, and the bowels are much irritated by frequent small discharges, and especially if there be any streaks of blood, we have found the most decided advantage

from a tea-spoon-full of the oil of butter given three or four times a day. The oil of butter is prepared by putting a lump of perfectly sweet butter into a tea-cup, and pouring on it a quantity of boiling water, and agitating it well with a tea-spoon that it may be deprived of its salt—the oil is then skimmed off as it is wanted; should it not be sufficiently fluid, pour off the cold water each time and add fresh warm water.

‘ During the continuance of this complaint, the child, when practicable, should be confined to its mother’s milk; and the mother should at this time avoid such diet as would become ascendent on the stomach—most of the common vegetables should be avoided, though she may indulge freely in boiled rice with her meats at dinner—she should abstain from all kinds of liquors, especially the fermented. She may drink freely of rice water, toast water, or milk and water.

‘ We have constantly found in this complaint, that local applications, when properly managed, are of the utmost consequence; we therefore direct their immediate use.* The best we have ever tried, is, certainly, equal parts of borax (borate of soda) and loaf sugar, rubbed together until very fine; a small quantity of this in its dry form is to be thrown into the mouth, and repeated every two or three hours. This mixture is quickly dissolved by the saliva of the child, and is soon carried over the whole of the mouth. We should be very positive in forbidding the mouth of the child to be rubbed with any thing whatever, under the pretence of cleansing it. The cruel and mischievous practice of scouring the mouth with a piece of flannel, cannot be too strongly reprobated. We have seen a poor little creature in agony, after it had undergone this rude discipline from the heavy hand of an unmerciful nurse; nay, we have seen it bleed, even freely, from the barbarous treatment it received under the specious pretence of doing good. We are persuaded, from many years’ experience, that the mouth requires no other washing or cleansing, but what is procured from the application of the borax, and the frequent draughts of the mother’s milk.

‘ We do not however continue the borax, should the efflorescence become discoloured; we then generally employ the Armenian bole in fine powder with loaf sugar, and use it as we have directed for the borax; but should this fail to give pretty speedy relief, and particularly if the mouth be very red, livid, or ulcerated, we then have recourse to a weak decoction of the bark. We order half an ounce of powdered bark to be stewed in half a pint of water for twenty or five-and-twenty minutes over a slow fire, and then permit

* Dr Underwood differs with us upon this head, though we have no hesitation to say, that general experience is much in our favour. He says, ‘in regard to applications to the part, it is necessary to observe, as they have little to do in curing of the complaint, it will be improper to have recourse to them very early.’ Yet a little further on he confesses that he has ‘met with an instance of a very copious thrush disappearing after cleaning the mouth with borax and honey, at noon and night, on the fourth day of the disease.’

it to settle ; about a third of a tea-spoon-full of this is put into the child's mouth, every hour or two—as it is not agreeable to the child, it will not be much disposed to swallow it, by which means it will be diffused over the whole mouth—we have often seen this attended with most marked advantage.

' During the continuance of this complaint, the most scrupulous attention should be paid to cleanliness—the child's nates should be washed with flaxseed tea after every evacuation ; and the excoriated parts should be constantly defended by a coat of fine hog's lard, or the best quality of soft pomatum. The same diaper should not be used twice without washing.' p. 289—291.

Two kinds of colic are described :—1st. where it attacks the child at any time of day, without evident cause ; and, 2d, where it observes a periodical movement. The first may be produced by the mother's milk, and this may be insufficient in quantity, or its quality may be bad. It is produced indirectly by the first, as on account of a want of quantity, improper food may be given to supply the deficiency.

' Perhaps diarrhoea, with green stools, is produced ; or it may not have too many evacuations, but they are evidently the remains of ill-digested food. When pain arises from the use of improper food, the child almost always becomes uneasy as soon as it swallows it ; and if it arise from ill-elaborated milk, it complains so soon as it is done sucking. Its little abdomen becomes swoln and tense, and it writhes its body as if in the utmost agony. It sometimes becomes suddenly relieved, by eructing a considerable quantity of wind ; or it passes downwards, carrying with it a very small portion of fæces.'—p. 292.

The treatment should be begun by altering the diet of the child. A new nurse is to be obtained if the milk is in fault ; and if the child have been already weaned, a different food is to be substituted for that formerly used. In many instances, the salutary effects are soon apparent ; without medicine, or when but little has been employed, we shall find the infant improving in looks, and a state free from suffering. For the most part, some remedies will be indicated.

' During, however, the trial of changing the food, we must temporise, and administer immediate relief to the sufferer : for this purpose, we have been in the habit of employing the following mixture, with the most decided advantage, it rarely failing to give instant relief, and sometimes effecting an entire cure :—

R. Magnes. Alb. Ust.	9j.
Tinct. Foetid.	gut. ix.
— Theb.	gut. xx.
Aq. Font.	3j M.

Of this, twenty drops are to be given when the child is in pain, and

if not relieved in half an hour, ten drops more are to be administered. This dose is calculated for a child from two weeks to a month old: If it be older, a few more drops must be given; and as the child advances in age, or becomes accustomed to its use, the proportions of the ingredients must be a little increased. We must however caution against too rapid an increase of dose, as this is by no means necessary, and is wantonly subjecting the child to the use of a medicine, which should only be given when pain demands its exhibition.'—pp. 293, 294.

The second species of colic is periodical. It may begin with the erratic form, but at length becomes regular in its returns, and, for the most part, according to Dr Dewees, between four and six o'clock in the afternoon. It frequently stops, of itself, when the child gets to be three months old. The general health is not in the majority of cases affected, the child even thriving during its continuance. In treating it, the bowels are to be attended to, and mild cathartics given if necessary. In some cases, a decoction of bark has been exhibited on account of the periodical character of the disease, and sometimes with the happiest effect. A case is related, in which colic seems to have been produced and kept up by a morbid state of the milk produced by long continued and severe toothach. The child suffered for five months, before the disease in the mother was discovered by the physician. The child was emaciated to a skeleton. The tooth was at length extracted, and the colic disappeared. We distinctly remember a very severe case of this species of colic. The fit occurred about twelve at noon. The mother and infant were apparently very healthful. Slight costiveness occasionally existed in the child. Various means were used to obviate this, and to give relief from pain during the paroxysm. At length calomel was given in the forenoon, and a mild cathartic an hour or two afterwards. This was done for three or four days, and the disease entirely disappeared.

Purulent ophthalmia of infants is thus described:—

'From about the fourth to the seventh or eighth day, or longer, after delivery, we sometimes find the eyes of the child beginning to inflame; they are first observed to glue up in the morning, and quickly after the whole of the lids become swelled, and especially in the early part of the day, or until the eyelids have become unclosed, and given issue to some purulent matter. The eyes themselves are soon found to partake of the inflammation of the lids, and have a peculiarly fiery appearance; the child now keeps its eyes entirely closed, or closes them at the approach of even a weak light. After a plentiful secretion of pus has taken place, which generally happens after the third or fourth day, the lids during the

night become pretty firmly attached to each other, in consequence of the discharge from them becoming inspissated, and thus gluing them firmly together; this permits a considerable accumulation of pus behind them, which distends the upper eyelids especially, very considerably, and swells them sometimes even with the socket. Upon moistening the eyes with warm water, the lids are enabled to separate, which permits a considerable quantity of pus to discharge itself—the eyes now seem to swim in pus, and the dark parts of them can no longer be seen. The whole of the internal linings of the eyes, which become exposed upon separating the lids, is of a bright scarlet red, manifesting an intense degree of inflammation, which, if not interrupted by very active remedies, runs on to disorganization, and total blindness.' pp. 295, 296.

Dr Dewees ascribes this disease either to gonorrhœa, or leucorrhœa. We give the treatment in the author's words:—

'We should commence our plan by leeching—about three common-sized ones should be applied to each eye, (if both be affected;) the bleeding from the leeches should be encouraged for some time by the application of a soft bread and milk poultice, confined between the folds of a fine piece of linen rag. After the weeping from the leech wounds ceases, the eyes should be exposed to the air in a very dark room, and should be kept cool by a very weak solution of the acetate of lead in rose water, in the proportion of two grains of the former to an ounce of the latter. This is best employed by washing the surface of the eyes frequently, with a fine piece of linen rag, wet with the solution. The eyes should not be bandaged up, as the heat does much mischief. Should the eyes betray a disposition to glue up, notwithstanding the frequent moistening, care should be taken to prevent it, by washing them carefully with the mucilage of the pith of sassafras, every hour or two. We should keep the bowels freely opened, or rather purged; and for this purpose, we have found the following answer extremely well:—

R. Calom. ppt. gr. iv.
Magnes. Alb. Ust. gr. viij.
M. div. in viij.

One of these powders to be given morning and evening, mixed in a drop of any common syrup. Should this quantity not purge sufficiently, let another powder be given—should it operate too freely, give less.

'If the inflammation be not abated by these means in the course of forty-eight hours, the leeching should be repeated, and the other treatment recommended strictly followed. So soon as the violence of the inflammation is overcome, we should apply a blister to each temple, which should be encouraged to discharge, by dressing with basilicon or weak savin ointment. Dr James* says, that "blisters

* Burns's Midwifery, Vol. II. p. 32. Note.

have occasionally been applied over the closed eyelids, with the best effect." We can say nothing of this from our own practice, but it can be safely relied upon, coming from such authority.

"After the disease is so much weakened as to permit the child to open its eyes in a dark room, we may safely begin to use some weak, mild collyrium with advantage; the best that has presented itself to us, is a very weak solution of the acetate of zinc, as follows:—

R. Acetas. Zinci. gr. ij.

Aq. Rosar. 3ij. ft. sol.

The eyes to be washed with this four or five times a day.

"It is found to be very useful to wash the matter from the eyes by injecting warm water between the lids, three or four times a day, by means of a small syringe. The mother's milk is also thought to be very useful in preventing the lids from sticking together, by being frequently milked upon them." pp. 299, 300.

We pass to chapter 12, 'of Dentition.' This, with the following, 'of the Diseases arising from Dentition,' are among the most important parts of any work on the diseases of children. Dr Dewees' opinion respecting the direct and indirect agency of dentition, in the production of disease, may be learned from the following statements:—

'Yet it cannot be truly said, that many diseases are necessarily connected with the acquisition of teeth.' p. 304.

'We are, however, not to be understood as underrating the dangers attendant upon teething; and though we are not disposed to consider teething itself a disease, we are, nevertheless, well aware that it provokes such as may not be present, and aggravates those absolutely existing; consequently must be considered as a period of great moment to the poor child.' pp. 305, 306.

Dr Cheyne says, 'notwithstanding my most diligent inquiries, I have seldom been able to deduce any of the derangements of the infantine system from teething; and I have been inclined to think, that those physicians who have represented this function as teeming with danger, have not accustomed themselves to that careful investigation, without which these diseases cannot be understood. The weaning brash, I have the strongest reason to believe, has no connexion with teething, farther than they sometimes meet in the same child.' Dr Dewees agrees with Dr Cheyne, that dentition is not a disease; but regards it as a frequent and very active agent in its production.

We have stated these views somewhat in detail, because we consider the subject quite important, and because we believe correct notions respecting it are essential to correct practice. We do not agree with Dr Cheyne, that dentition is so harmless a process as he supposes; and that it has but a slight relation

to the health or diseases of children. We know of no one cause so active as this in the production of these diseases. The process itself is a natural and healthful one, and so is pregnancy and labour. But do we not find these two last constantly, or not unfrequently, associated more or less strongly with what is morbid, and do they not frequently produce disease? There are some facts which throw much light on this subject. The first is the comparative healthfulness of children who are at the breast during dentition, in all seasons of the year; the second, the commonness of disease, particularly in summer and autumn, among teething children, who have been weaned late in spring, or during the hot months. We go farther, and include in this last remark, those children also who have been weaned early in spring, and who have none, or but a few teeth, and are to get the remainder in the hot weather. We may be answered that it is the food, and not the teething, which does the mischief. But why is it that food, which has been tolerated so perfectly well for months, comes now to irritate the alimentary canal, and to produce the most grave diseases? The season is now taxed as the cause. It is hot weather. The child has been gradually weakened by the season, and is now most susceptible of the influences of food. But if it had not been weaned, it is admitted that it would have cut its teeth with comparative ease; and if now, in the midst of its disease, it can be returned to the breast, its health will be restored, and almost without any other remedy. These facts put it beyond dispute that dentition, though a perfectly natural process, may occur under unfavourable circumstances, either of the infant, the season of the year, or of diet, and thus become an exciting cause of disease. It may be added that it is almost equally notorious, that without any very obvious predisposition, teething may and does excite disease.

Some important lessons of prevention are taught by these views; and it is this fact in their history, that makes them most interesting. We may diminish the chances of disease in teething children, by the directions we give about weaning. In this part of the country, it is very probable that children are kept at the breast longer than in others. That time or season for weaning is chosen which shall insure to the infant the whole benefit of nursing, when the process is most active; and especially is this done, where this process is to be in greatest activity in the decline of summer or beginning of autumn. Much benefit has been derived from this. A good deal of prejudice, both professional and popular, was opposed to these views, but in a measure they prevail; and the summer diseases of infants, par-

ticularly cholera, have been comparatively rare, and far less fatal than they used to be. Much of this change, we feel no hesitation to ascribe to some papers on cholera infantum, which appeared in the first volume of this Journal. Suppose then a child of eight or nine months, in the middle of spring, has no teeth, or only two or four of the incisors, what would our advice be, if questioned on the subject of weaning? We should, without hesitation, advise that it be not weaned. Suppose, in this case, we were consulted in April? But suppose, between April and June, two or more teeth have protruded, and we are again consulted? We should, as unhesitatingly recommend that the nursing be continued. In giving this advice, we should feel that we were supplying the child with food quite nutritious enough for all its demands in the summer, and contributing greatly to its comfort as well as its health by the advice we gave.

Dr Dewees has devoted a good deal, of this part of his work, to the various diseases which have been more or less immediately produced or aggravated by dentition. It forms an exceedingly valuable part of his volume; and though we feel very unwilling to offer less than the whole of it to our readers, we shall indulge in a few extracts.

Our first extract is from the treatment of *Feculent Diarrhoea*:

'Should there be much nausea, or many efforts to puke, it will always be best to cleanse the stomach; as these symptoms are almost sure to arise from the presence of a portion of whatever substance may have been offensive. For this purpose, we have ever found calomel, in proper doses, the best possible remedy; for it is almost as certain to cause puking, under such circumstances, as a medicine professedly emetic, without the inconvenience of the latter remedy. The calomel, in such cases, had always better be given in divided doses—say, the full dose, divided into three parts, and a portion of it given every hour in a suitable vehicle,* until it effects the intended purpose.

'The doses of calomel proper for the different ages and habits of children, are easily ascertained when given as just suggested, in divided doses; as this medicine almost always acts with more certainty and promptitude, when thus given, whether its operation is intended to be emetic or cathartic; and at the same time, no possible risk is incurred, as the child cannot take in this manner, an over

* It is a matter of consequence, to attend to the vehicle in which calomel is given; its great weight prevents its being suspended by water, or any other equally thin fluid—it must therefore be mixed with a drop of syrup, almost of any kind; or, with a very small portion of loaf sugar, may be thrown dry into the mouth. It is also of much use to attend to the quantity, as well as the quality of the vehicle; as much error is committed, by employing vastly too much of it. The quantity should be no more than will entangle the calomel.

dose. With the adult we know, that enormous doses are given by some ; and this without any additional sensible, though it is said with a greater certainty of ultimate effect ; but this does not obtain in the child, where there is so much more irritability of system—and of course it must not be taken for a rule. Therefore, should a full dose be estimated to be six or eight grains, or even less, it must be divided into three or four portions ; one of which, should be given every hour, until this quantity be taken, unless the previously exhibited parts have operated. And should this fail to have operated as an emetic, we may be pretty certain there is nothing offensive remaining in the stomach, and the calomel will sooner or later pass through the bowels.

‘ We have made the above remarks, with a hope they may diminish the fears so very often entertained of the violence of this medicine ; we can truly say, we have never witnessed a single instance of over purging or puking, from this drug. We do not mean however to convey the idea, that it cannot happen ; far from it ; for we are sure it might take place, with it, as well as with any other medicine, injudiciously exhibited—we only mean, that too much apprehension is frequently cherished when it is exhibited. Therefore, a grain or two more of calomel to a child, beyond six or nine months of age is of no moment, provided this quantity is all the excess. Nor would we say there are not peculiarities of constitution, which would prohibit the use of this medicine. These cases however are so very rare, as hardly to amount to an exception. But when they occur, they should be strictly attended to.’ pp. 357, 358.

‘ Should the bowels be sympathizing with the gums, the disease will prove more obstinate, and perhaps be even continued in a chronic form, especially if the early part of the disease has been neglected, or improperly treated.

‘ The mouth, under these circumstances, requires proper attention to be paid to it ; for if the teeth give much irritation, the diarrhoea may continue so long as this lasts, however industriously we may address remedies to the bowels. In every case of this disease, where teeth can be suspected of having an agency in its production, the gums should be carefully examined ; and in doing this, the recollection of the general order in which the teeth are cut, (see Book I. p. 193, par. 656.) will greatly aid in the detection of the irritating teeth—but this order must not be scrupulously relied on, as the deviations as already noticed are considerable.

‘ Should the gums be swollen, the teeth should be cut down to, and that freely—but if there be no swelling, or inflammation in the gums, it would be as unavailing as cruel, to lacerate them. So far as our experience goes, we think we are justified in saying, there is no possible advantage derived from this operation, when there is no evidence of irritation in the gums from the protruding teeth ; though we confess there are many experienced, and intelligent practitioners in the habit of performing it. We think we are sure

when we say, that we have never known the slightest advantage derived from dividing the gums, when there was neither inflammation, nor swelling in them, though the teeth were rapidly making their appearance; for this act as we have already said (672) is not always attended by a sympathizing system.

‘ We are aware, that many are opposed to the use of laudanum in the early stages of diarrhoea; but we think they are too indiscriminate in the rejection of this remedy. We are ourselves adverse to its administration, where the bowels have not been liberally purged; where there is fever; and where there is no pain; but where neither the want of due purging, nor fever, make a contraindication, we almost always give a few drops at night, and especially if the child be very restless, or in pain. We are persuaded we very much abridge this complaint by this plan; and almost certainly prevent its running into a chronic form, after we have removed as far as in our power, the exciting causes of the disease.’ pp. 359, 360.

The following occurs under *Bilious Diarrhoea*.

‘ Where a bilious diarrhoea has continued for some time, either from the force of the remote cause, neglect, or ill treatment, and has been attended pretty uniformly by green and slimy stools,* we have often the satisfaction of seeing them speedily change to a bright yellow; this change in the appearance of the discharges, is almost a certain sign that the disease is about to yield. This has been effected, by ordering a proper regimen; regulating the heat of the body; covering the limbs with woollen stockings; applying flannel to the abdomen; prohibiting improper drinks; withholding “*infallible remedies*;” lancing the gums; by the use of small doses of calomel, and the occasional exhibition of laudanum, either by the mouth, or by enemata.

‘ In this stage of the complaint, we are sometimes aided very much, by giving lime-water and milk, in equal portions,† several times a day; or sometimes by having their milk diluted with it instead of common water, where the child is either weaned, or is obliged to be supported in part by artificial means.’ pp. 367, 368.

Chronic Diarrhoea, or ‘ Weaning Brash.’ Treatment.

‘ Three indications here present themselves: 1st, to alter the nature of the actions of the stomach, bowels, and liver; 2d, to abate the frequency of the discharges; and 3d, to restore the lost strength of the parts immediately concerned, and the system in general.

‘ The first indication must be fulfilled by freely emptying the bowels by castor oil, rhubarb, or calomel; and then by giving small

* By slime, we do not mean the mucous secretion of the bowels, which is white, or whitish, tinged with a little blood; but a tenacious bile itself, of a green colour, though not perhaps so intense as the general substance of the evacuation.

† The dose of lime-water and milk, may be a tea-spoon-full of each, every hour or two, for children under six months; double this quantity, or even more, for older children.

doses of calomel; that is, from a quarter to half a grain, morning and evening, with three grains of prepared chalk, and from a tenth to a twentieth of a grain of opium, according to the age of the patient. The second must be attempted, either by rhubarb, or the cretaceous mixture: by rhubarb, during the day, in the form of syrup, every three hours, in the dose of a tea-spoon-full, or half a tea-spoon-full, with half a drop or a drop of laudanum, according to the age of the child, to the degree of pain, or as the motion of the bowels may be more or less frequent; always proportioning the quantity of the laudanum, and the frequency of its exhibition, to the exigencies mentioned. At night, a sufficient quantity of laudanum by the mouth, or by injection, should be given, to keep the bowels quiet until morning.

‘ By the cretaceous mixture, when there is evidence of a prevailing acid in the evacuations. This may be known, 1st, by the green being light, and the evacuations watery; 2d, by the smell; 3d, by the appearance of portions of hard curd among the faeces; 4th, by the discharges becoming greener by standing; 5th, by the matter vomited, should vomiting attend, smelling sour, and the milk coming up in strong curd; 6th, by a dense white coat upon the tongue, which is a stratum of milk coagulum.

‘ The best form of giving the mixture, is as follows:

R.	Cretæ ppt.	3 iij.
	Tinct. Thebiac.	gut. xx. vel xxx.
	Ol. Cinnam.	gut. j.
	Sacch. Alb.	3 iij.
	Aq. font.	3 iij. M. f. Julep.

A tea-spoon-full of this must be given every two, three, or four hours, as it may influence the motions of the bowels. Where the motion of the bowels is kept up by acidity, the effect of this remedy is sometimes so prompt, that two or three doses will entirely suspend the discharges—therefore, wherever this effect is observed, medicine should be suspended, until the recurrence of a fresh necessity.

‘ If it do not show this decided control over the motions of the bowels, it will nevertheless, if the greenness of the evacuations depend upon acid, very much abate their frequency, and change their green appearance to yellow; but should it depend upon bile, it will have little or no effect. It may be persevered in, as necessity may require. But we always feel it important in such cases, to tranquillize the bowels during the night, by a suitable dose of laudanum.

‘ Should however, the motions of the bowels, be too long arrested, that is, beyond eight or ten hours, an injection of molasses and water, should be given; and if necessary it may be rendered more stimulating, by the addition of a little salt. In this way, the motions may be kept in subjection, or rendered obedient to the wishes of the physician. During the whole of the time, the most particular care must be paid to the diet, and drinks of the patient.

‘ Nothing heating or stimulating; should be given, either as nour-

ishment, or as drink. Every species of liquor, animal food, or broth must be prohibited. The diet must consist only of such articles, as the stomach can best manage, as milk and water, gum Arabic and water, very thin arrow-root, sago or tapioca; rennet whey, barley water, or rice water. Nothing solid of any kind, should be given. The occasional use of melted butter, is found oftentimes highly advantageous, in every state almost of chronic diarrhoea; but is especially so, where there is a predominance of acid, and where there are sparing stools, accompanied by hard curd, and a whitish mucus from the bowels. It is made by pouring boiling water, upon a lump of perfectly sweet butter in a tea-cup, and stirring it until it is all melted; a tea-spoon-full is skimmed from the top, and given several times a day.

‘It may be well to observe, that during the period in which too much acid prevails, but a very small quantity of milk should be used, unless it be reduced by lime-water—in this state of combination, it may be given; or if there be but very little fever, or none, chicken or beef tea may be used, instead of the vegetable jellies above mentioned; with the exception perhaps of the gum Arabic water. We are in the habit of continuing this mucilage throughout the complaint, where it does not disagree, or where the child does not confuse it.

‘The third indication may be fulfilled, by the proper use of diet—permitting the use of weak broths, without vegetables being boiled in them, with the exception of rice; but even this must be strained from them before they are given. A soft boiled fresh egg, may after a while be given; a portion of ham may be sucked; or a little well boiled rice, with sugar, very fresh butter, and a little nutmeg, may be made to follow from time to time.

‘But if the child be weaned, nothing will so certainly contribute to its recovery, as its restoration to the breast, when practicable; or if the child be at the breast, and there is room to suspect the quality of the milk, a fresh nurse should be immediately procured. Should the teeth be in fault, the gums should be freely cut. Proper exercise must be instituted; and when proper, the child should be sent to the country for the benefit of a change of air.’ pp. 388—390.

Cholera Infantum.

‘The disease, as already stated, usually commences with a very disordered state of the alimentary canal; and, it seems to be admitted, that our earliest endeavours are to be directed to the evacuation of the stomach and bowels. As regards, however, the precise course to be pursued, to effect this purpose, there is not the same unanimity. Generally, purgatives are employed in preference to emetics; and especially the castor oil. Cases of a mild nature, may undoubtedly be treated in this way, and particularly if laudanum be occasionally added, when there is little or no fever. But, in the more violent forms of the disease, attended by vomiting, it will be impossible to get such medicines to be retained. It is, therefore, necessary that we attempt to allay the irritability of the stomach.

‘ For this purpose, there is nothing so certain, or so prompt, as an injection of a gill of warm water, in which are dissolved three tea-spoons-full of common salt ; this is for a child of a year old and upward, proportionably less for younger. And however frequent the discharges may be per anum, it must not be regarded ; the injection must be given. If it operate immediately, and bring with it a foecal or bilious discharge, the stomach becomes almost immediately quieted ; and may then be repeated only pro re nata—that is, whenever the vomiting be again severe. Should it not bring any thing off, it must be repeated ; and an attempt made to force it high into the bowels ; or should the vomiting not cease, it must again be had recourse to.’ p. 401.

‘ The great desideratum in cholera infantum, is to tranquillize the stomach ; if the disease has been provoked by any irritating matter in the stomach itself, it should be our first endeavour to remove it, by encouraging the puking, by draughts of warm, or even cold water, where the warm will not be drunk, until no foreign substance appears in the matter thrown up—but do not let us administer an emetic ; for, so long as nature continues her efforts to dislodge the offensive substance, it cannot be required, as she will certainly succeed if she be aided by warm water ; and it can never be necessary, after it has cast off the irritating material.

‘ When this complaint attacks very young children, nearly the same plan should be pursued—that is, an injection of the same materials must be given, of nearly the same strength, but of less bulk, and this repeated when necessary—or should the first not succeed in allaying the irritation of the stomach, it should be repeated in half an hour. A tea-spoon-full of strong coffee, without sugar or milk, every fifteen minutes, should be given to very young children especially ; but we believe all ages would profit by it in larger doses. We have, in a number of instances since we first tried it, seen it act like a charm.’ pp. 401, 402.

‘ If the stomach has not become tranquillized by the injection, or the strong coffee, we immediately commence with minute doses of calomel. We first prescribed this remedy in doses of half a quarter, or an eighth of a grain in cholera, in the year 1795, and were, by some of our medical friends, severely ridiculed, for the supposed insufficiency of the dose. But this did not deter us from the practice ; for we have pursued it from that period until the present moment, though we could then gain but few to our opinion : since, however, Mr. Ayre has written on the subject, it has got into general use. We never combine opium with the calomel, in the early stage of the disease ; being convinced it is better to exhibit it alone. The following is the form and average dose we use :

R. Calom. ppt. gr. iij.

Sacch. alb. gr. vj.

M. div. in par. xij.

‘ One of these powders is thrown into the child’s mouth, every hour, until the bowels are decidedly operated on by them ; this may

be known, by the stools being more copious, less frequent, and of a dark green colour, with a tenacious slime of the same or nearly the same tone of colour. When this change is observed, the powders are given much less frequently; say, once in two, three, or four hours, as the symptoms may have abated, or proved refractory. After the bowels have been well evacuated, and the child in pain, or pretty much exhausted, we order an injection in the evening, with laudanum proportionate to the age of the child.

‘Should the symptoms persevere, we renew the treatment of the previous day, until similar effects are produced; and the laudanum at night; pretty much after this plan do we treat the first, or acute form of this disease. If much fever attend, with great gastric distress, we have found the most decided advantage from bleeding, or the application of leeches over the region of the stomach; or if there be much cerebral determination, bleeding from the arm, or draw blood from the temples by leeches.

‘Should irritation of stomach continue, and the legs and feet become cold, much good is frequently derived by blistering the legs. But from what has been said it will appear, that our chief reliance is upon the use of the calomel.’ pp. 402, 403.

‘Having thoroughly evacuated the primæ viæ, and re-established healthy secretions, we are to desist from purges; we should be content with keeping the bowels in a soluble state only; unless, we have evidence of re-accumulations of bilious, and fouler contents, or of hepatic torpor and congestion, when the same course is to be renewed. But if irritation be excessive, and, as usual, productive of frequent and painful discharges, we may with much advantage, administer anodyne injections, three or four times in the course of the twenty-four hours. These remedies will, in most cases, certainly calm the intestinal canal; and, as soon as this happens, the acrid discharges, together with the other symptoms, very generally cease to be troublesome. Yet, it will be occasionally necessary, to administer a mild purgative to remove oppressive accumulations, where such manifestly exist.’ pp. 403, 404.

Much valuable matter follows, showing the importance of attending to the state of the skin in all stages of the disease, and especially in the advanced, when a coldness here is by no means uncommon. The use of blisters follows, and then much on the various combinations of astringents, together with formulæ. The importance of change of residence, removal into the country, is very wisely appreciated. We close this subject with one more extract.

‘This brings us to the consideration of regimen. In the commencement of the disease, the diet should consist exclusively of breast milk; which is of such importance, that a nurse ought to be procured, where the child has been weaned. It will of itself, sometimes cure the disease. But if the child will not take the breast, let it be fed on diluted sweetened milk, or barley or rice

water and milk, or gum tea. These will serve also for drink. But balm, or marsh mallows tea, soda water, and burnt bread and water, may also be directed for this purpose. In the advanced stages, the farinaceous articles may be employed—as arrow-root, tapioca, sago, rice, or boiled flour. Extreme debility of the stomach and bowels existing, a little ham, or salt fish may be allowed. Yet the only remedy which is sovereign, and nearly unfailing, is a change of air. As long as the child remains in the city, and exposed to the operation of the causes of the disease, we may palliate, or suspend its career, but can hardly ever make a radical cure—relapse upon relapse taking place, till a final extinction of strength.' pp. 406, 407.

We have the following on prevention.

' To prevent a disease, so difficult of management, and so destructive of life, and happiness, we shall indicate those measures which common experience has found best.

' 1. Never permit a child to be weaned within the year, when practicable to prevent it. No food is so salutary as the natural milk. As respects this complaint, weaning always predisposes to its attacks.

' 2. Direct the wearing of flannel next to the skin, and worsted stockings. The great benefit of this system, is experienced by grown persons, prone to intestinal complaints, and we know its utility is not less in children.

' 3. Duly regulate the diet—let an excess of all fruits be avoided, and unripe or unwholesome kinds, absolutely excluded. The proper food of a child, is, substantially, milk, with farinaceous matter, such as arrow-root, rice, biscuit, &c. After a few months, provided it has teeth, it will be useful to accustom it to a little animal food. It strengthens the powers of digestion, and the general tone of the alimentary canal.

' 4. During dentition, let the gums be frequently examined, and if any appearance of swelling or inflammation exists in them, they must be lanced. Dentition, during hot weather, is but too apt to excite cholera; and if the complaint exist, it never fails to aggravate it.

' 5. Let the child, when practicable, be removed to the country; but not too early in the season.' pp. 407, 408.

Pertussis, or Whooping Cough.—Dr Dewees opposes the popular opinion, which Sydenham espoused, that this disease will have a determined course; and that we can only relieve the pressure, or inconvenience, of the immediate symptoms. He alludes to many instances in support of the opposite opinion. His treatment is an active one, the severity of the symptoms, especially in the early stage, being the main guide. Thus he bleeds, purges, vomits and blisters, as either or all of them may be indicated. In the last stages he uses tonics, of which quinine seems to have the preference.

‘ Bleeding is demanded in many instances, independently of other circumstances, by the interrupted circulation of the lungs; and affords almost always, the most decided relief. And this must be repeated as the necessity for it may continue, or as this necessity may subsequently return, in the progress of the case. Even in Europe, where the lancet, comparatively, is so sparingly employed, this practice is commended, and generally pursued; but in this country, its employment, for the most part, is indispensable.’ p. 412.

‘ Evacuations of the alimentary canal must also be brought in aid of bleeding; and these may be made by emetics, or cathartics, according to circumstances. The former are chiefly applicable to children, and where the attack is violent, and the oppression great, must be repeated daily, and sometimes oftener. To keep up the impression on the stomach, small doses of antimony, or squills, or ipecacuanha, should be given in the intervals. Or what has answered all these intentions with the most decided efficacy, is Coxe’s hive syrup, given in proper doses.

‘ We always have recourse to this medicine, immediately after bleeding (if this has been necessary) and purging with calomel, in such doses as shall freely promote expectoration; or should there be oppression, or evidence of great accumulation of phlegm in the windpipe and lungs, in such quantity as shall freely puke. We, for the first purpose, order doses suitable to the age of the child, every hour or two, as it may show its effects. For a child of three or four months old, we would order eight drops every hour or two, and a proportional larger quantity as the age advances; and, for the second view, we would give these quantities every fifteen minutes until an emetic operation is produced. Let it be, however, remembered, that children of the same age will bear very different quantities of this medicine, as well as of every other; therefore, the doses must be constantly regulated by the effects. After this medicine has operated as an emetic, it must be given perseveringly, as before directed, as an expectorant.* pp. 412, 413.

‘ When there is strong determination to the head, the same remedies are required, both general and local. Leeches to the temples we have found of singular advantage, where much pain in the head was experienced after each spell of coughing; indeed, we never neglect this last symptom now, as we are convinced it was but the prelude to fatal issue in two or three cases we witnessed, by extravasations within the brain—and who has not witnessed the advan-

* The following is the recipe for making the compound syrup of squills, or Coxe’s hive syrup. Take of

Seneca snake root bruised }
Squills dried and bruised } each half a pound.
Water - - - - eight pounds.

Boil together over a slow fire till the water is half consumed; strain off the liquor, and then add of strained honey four pints.

Boil the honey and the strained liquor to six pounds, or to the consistence of a syrup; and to every pound of the syrup, add sixteen grains of tartar emetic; that is, one grain to every ounce,

tage, or at least the immediate relief, from an accidental bleeding at the nose?" p. 414

'Narcotics, and antispasmodics, are also directed at this period of the disease; among these, opium claims our first notice. After evacuations have been duly made, and there is a proper abatement of fever, or other marks of irritation, its use as a palliative of the more troublesome symptoms, is sanctioned by the experience of almost every body. The pleasantest, and we believe the best form for its exhibition, is in the brown mixture, in suitable doses at night.* p. 417.

'Artificial musk, has been long in use in spasmodic affections; and its powers have been, in some degree ascertained. It is only however, within a few years, that an application was made of it, for the cure of pertussis; and we have already said, we have found it oftentimes a valuable remedy.

'It is also highly estimated by Underwood; and especially, where the spasms are violent; it is given in the dose of five or six drops on sugar, or highly sweetened milk.' p. 417.

Passing over two chapters we come to *Croup*. This is divided into three stages, and the treatment given for each. These stages are, 1st, the forming stage; 2d, the completely formed stage; and, 3d, the congestive stage. For the first, rubefacients to the neck, with nauseating and vomiting doses of the hives' syrup are recommended. For the second, which consists of two periods, the first where the disease is local, or the heart and arteries are but slightly affected; and the second, in which they are very positively affected; two methods are suggested. Emetic and cathartic doses of tartar emetic and calomel, followed by expectorant doses of hives' syrup, form the principal treatment for the first of these periods. For the second, bleeding is added to the treatment of the first, or, if farther vomiting is not indicated, cathartic doses of calomel are used; rubefacients are also continued. Dr Dewees has seen no benefit from the warm bath in croup. He has had, he says, 'the most unequivocal evidence of injury' from its use. In the

* The following is the formula for the brown mixture; so called from its colour:—

R.	Elix. Paragor.	3 j.
	Vin. Ant.	3 ss.
	Succ. Glycerh.	3 iij.
	Pulv. G. Arab.	3 ij.
	Aq. Fervent.	3 vj. M. ft. sol.

Of this, a child from four months to six, may take a small tea-spoon-full every two or three hours during the night, should the cough be troublesome. One from six months to a year, a large tea-spoon-full, and repeat if necessary—one, from one to two years, a desert spoon-full, and repeat; one, from two to four, a table-spoon-full, and so on, as age increases.

congestive stage, he recommends emetics to remove the false membrane which belongs to this stage. He employs, for this purpose, a strong decoction of the Seneka snake root. He has seen tracheotomy twice performed, but without benefit. He has little confidence of this ever being useful, in what are regarded its appropriate cases. The remaining chapters treat of worms, scarlet fever, measles, nettle rash, burns, prolapsus ani, whitlow, discharges from the vagina, and scurfiness of the head. The volume closes with a translation of the prescriptions given in the work, with a glossary explaining technical terms.

ART. IX.—*The Lectures of Sir Astley Cooper, Bart. F.R.S. Surgeon to the King, &c. &c. on the Principles and Practice of Surgery; with Additional Notes and Cases.* By FREDERICK TYRELL, Esq. Surgeon to St Thomas's Hospital, and to the London Ophthalmic Infirmary. 2 vols. Boston: Wells & Lilly, pp. 263 and 343.

(Continued from p. 193.)

WE proceed with our analysis of these invaluable volumes, because we know of no way in which our pages can be filled up so profitably to our readers. We finished, in the last number, the account of the nine first Lectures, containing the views of Sir Astley on the general principles of Surgical Practice; we come now to particular surgical subjects, and the three next Lectures relate to injuries of the head. Sketches of the particular views of our author, on these injuries, have been previously published in the Journals, and these sketches agree very well with the present authentic publication; but although they may have been read by many, they are less full than the Lectures as now published, and do not supersede the necessity of some account of them here.

Injuries of the brain are of two kinds; those which result, 1st, from concussion; 2d, from pressure, which may be the result of extravasation of blood, of depression of bone, or of matter produced by inflammation on the brain.

The tenth Lecture treats of concussion. A person, suffering from concussion of the brain, appears upon a superficial view as if he were in a sweet sleep; his breathing and pulse are both easy, free, and natural. But he is roused with difficulty; he mutters incoherently when spoken to; in short, he is comatose. At first there is torpor of the intestinal canal, and a difficulty in procuring operations, but afterwards an involuntary discharge of faeces; the urine is at first retained, but after-

wards is involuntarily discharged. There is sometimes bleeding at the nose and vomiting of blood which has been swallowed. The pupils of the eyes are generally natural, though sometimes dilated. The pulse, though natural in the quiet state, is quickened upon any motion, and the carotid arteries beat with a disproportioned force.

The mind is variously affected; sometimes its functions are totally suspended. Sometimes the memory is wholly gone; sometimes only impaired as it respects particular things. Thus, a Welshman in London forgot his English, and could only speak Welsh; and in the same way, a German could only speak German. A patient, who is sensible if roused, will be constantly talking of some one circumstance if left to himself.

The injury is commonly immediately followed by insensibility, and subsequently by vomiting. The patient seldom recollects the accident itself. He recollects, for instance, that he was riding on horseback, but not that the animal ran away, and that he was thrown. He sometimes, when partially recovered, performs certain actions from habit; thus a person lathered himself with blistering ointment in order to shave, and washed his feet in some lemonade in the chamber-pot. Something like the effect of old age upon the mind is produced by concussion. Recent occurrences are forgotten, and former ones remembered.

'The degree of injury sustained by the brain in different cases, however, varies greatly. Some are only stunned or deprived of sense for a moment, others recover in a few hours; some remain, in a great degree, insensible for fifteen to twenty days. Some recover entirely, others have afterwards an imperfect memory. A partial loss of sense will be sometimes produced in the function of one eye, or deafness in one ear, and so of volition, as the squinting will continue which has been produced by an injury of the brain. A degree of fatuity, in some cases, ever afterwards remains; great irritability will continue in some persons, in others the least excitement will produce pain in the head. In one case I knew a remarkable irritability of the stomach remain after concussion of the brain; so that the least excitement would produce vomiting; and this symptom, as well as the usual occurrence of vomiting in these accidents, is probably produced by the direct communication between the brain and the stomach by the eighth pair of nerves.' p. 196.

Concussion sometimes arises from a general shake of the body, unaccompanied by any blow upon the head.

In the cases where injury has not been very severe, the bad symptoms seem to arise from a disturbance simply in the circulation of the blood in the brain. A violent fit of vomiting will sometimes restore at once the functions of the organ; and

when this degree of injury destroys, which rarely happens, nothing is found upon dissection which will account for the symptoms. But when the concussion is violent, it produces a laceration of some part of the brain, accompanied with some extravasation; and consequently, that which is a case of concussion in its commencement, may be one of compression in its result.

‘The great danger,’ says Sir Astley, ‘which we have to guard against in our treatment of concussion, is inflammation of the brain.’ And in guarding against this danger, we are to have regard to the same principles which guide us in all other cases of inflammation. Consequently we are to take blood, soon after the accident in a considerable quantity, which will not only remove existing, but prevent approaching inflammation. We are to repeat the bleeding when pain in the head, increased heat, and hard pulse are present, but are to be particularly cautious not to carry our object of keeping down inflammation too far. A certain degree of it is necessary to the reparative process of nature; and we are to repress it only when it threatens to go so far as to endanger life, always leaving enough to complete the restoration of the parts. It is no doubt a very difficult matter to determine, when there is too much, when just enough, and when too little, inflammation for this purpose. No man can always determine it, or determine it at any time with certainty. Still to this consideration we are to have regard in regulating our treatment. Sir Astley relates a case of concussion, in which the surgeon thought that he could not bleed his patient too largely. He accordingly bled him every day, and sometimes twice a day. The consequence was, that the patient became perfectly pale, was reduced to a state of great prostration of the powers of the body, and died in ten days without any symptoms of inflammation of the brain. On examination of the head, slight laceration of the brain was found, with some degree of extravasation of blood; but not the slightest attempt had been made by nature to heal the wound. Still in many cases, where inflammation in too great a degree continues to threaten, it is necessary to bleed again and again according to the state of the pulse; taking care to reduce that, without diminishing too much the powers of the body. A case is related, in which it became proper to take away from a single individual, of very full habits, two hundred and eighty ounces of blood, in treating a concussion of the brain; an hundred and eighty from the arm, and a hundred from the temporal artery and by leeches.

Many surgeons are in the habit, as soon as they are called to a person with any injury, particularly an injury of the head,

of bleeding them immediately. This they are perhaps often led to do, from the expectation manifested by the bystanders that some decisive step will immediately be taken for the relief of the injured person; and generally that bleeding will, without delay, be resorted to. But there are, perhaps, few cases in which bleeding is immediately called for. According to our author, when the patient is cold and dejected, when his pulse are feeble, and the powers of life obviously depressed, bleeding is the worst thing we can do. We must wait till some reaction takes place before we bleed. To be sure, the patient may die in this state; but if he is bled he will die all the sooner. Convulsions have ensued upon opening a vein in this situation.

The vomiting which follows concussion of the brain is regarded by Mr Cooper as a salutary effort of nature; and emetics have been proposed as remedies for this injury. When there is no laceration or extravasation, and no tendency to apoplexy, they may be of service, but they should always be used with caution. In lenient cases they do good; but in severe ones they are hazardous. Purgatives are of course required; and calomel, and senna with sulphate of magnesia, are recommended. The calomel is to be given about two hours after the accident. Diaphoretics may be given, but without opium; for opium confounds the judgment, by producing the same effects upon the brain as the injury. Counter-irritation by blisters forms an important measure in aid of the effect of bloodletting.

Trephining for the effects of concussion used to be a favourite remedy. Forty years ago, it was the plan generally adopted in the London hospitals; but inflammation of the membranes supervened, and recovery was very rare. By a different treatment, the result of cases of this kind is now very different. Depletion saves almost all. Mr Cooper remarks, that he found the practice of Desault, who scarcely ever, under any circumstances, applied the trephine, very much more successful than that of the English surgeons. This measure in concussion is now completely abandoned.

For the pain in the head, giddiness, diminution of sight, and deafness, which remain often after the other symptoms have been subdued, it is best to wash the head with spirits of wine and water, and to use the shower bath. The stimulating ointments may also be used, and aperient medicines given internally. Electricity, and an issue upon the scalp, are also useful. Advantage has been known to arise from a slight exfoliation.

Lecture XI. Compression of the brain may be produced,
1. By extravasation of blood. 2. By fracture of the skull,
with depression of a piece of bone. 3. By the formation of

matter within the skull. The symptoms of compression are, a loss of sensation and of voluntary motion, an apoplectic stertor, slow labouring pulse, and one or both pupils dilated.

When compression is produced by extravasated blood, the symptoms do not occur immediately after the accident. The patient is stunned perhaps at first, but recovers himself, and after some time falls into the apoplectic state, with the symptoms of compression above described. Several hours may thus elapse before the state of compression is manifested, during which the patient may appear sensible. Frequently, however, the injury produces concussion as well as extravasation; and in such cases the symptoms of concussion first appear, and the apoplectic stertor, with other symptoms of compression, follow on in due succession.

The blood extravasated in these cases, is met with in three different situations: first, between the dura mater and the pia mater; second, between the pia mater and brain; and third, within the substance of the brain itself. It makes little difference, however, either with regard to the symptoms or the mode of treatment, where the blood is effused. From the situation of the brain within the cranium, extravasation in any one place must produce compression of the whole organ. If, however, there should be any blood resting upon the origin of a nerve, there may be partial paralysis of the parts which that nerve supplies.

In these cases, there is little to be done but to bleed and purge freely, and keep the patient quiet. If there be any bruise indicating the exact seat of the injury, trephining may be resorted to, when all other means have failed. If blood be found between the dura mater and skull, it may be removed; but if not, it is useless to puncture the dura mater, as the blood is coagulated and will not escape, even if it be under the dura mater, whilst, very likely, it is in the substance of the brain itself.

Fractures of the skull are not in themselves dangerous, but they become so by being united with concussion or extravasation, and their treatment is to be regulated accordingly. They may also produce inflammation indirectly. Fractures at the basis of the skull are produced commonly, by falling from a great height upon the head, and are extremely dangerous, because there is generally extravasation, or at any rate great violence. Sometimes the fracture is circular, commencing at the top of the head, passing down on each side through the temporal bone and meeting at the basis. When the fracture is over the frontal sinuses, if it be simple, the air, upon blowing the

nose, rushes through the opening of the bone, under the skin of the forehead, producing emphysema; if it be compound, the air rushes through the wound. Fractures of the skull, when unaccompanied by any other injury, easily unite like fractures of any other part of the body, but more slowly. Where, however, a piece of the cranium is lost, so that a hole is made in the skull, as in trephining, the aperture is not commonly filled up with ossific matter, but by a substance of a tendinous nature.

In treating fracture without depression, it is only necessary to heal the external wound, if there be one; or if not, to treat the constitution by bleeding and purging, and let the local injury alone. There is no hurry for the application of the trephine; the other means should be tried before recourse is had to this. There sometimes appears to be a depression of bone, after blows have been received upon the head, although there really is none. The parts surrounding the seat of the blow, swell from extravasation of blood, whilst at the very spot where the blow was inflicted, the cellular membrane has been condensed by its violence, and no swelling takes place; consequently, at this spot, the bone seems to have been driven in. A considerable depression will, sometimes, also be produced by driving in the external table upon the diploe, without fracturing the inner. This, however, can only happen in subjects of middle age.

Even where there is a portion of bone considerably depressed, Sir Astley Cooper does not advise trephining for that circumstance alone. Nor, even where there are symptoms of injury of the brain, does he recommend the operation immediately. The mere cutting down upon the bone transforms the fracture from a simple into a compound one, and thus very much augments the danger. The bad symptoms, in any such case, may be produced by concussion, and therefore we should try first to reduce them by bleeding and purging, without having recourse to the trephine. For sometimes, even where a piece of bone is driven in upon the brain, recovery takes place without any operation, the bone remaining in its place.

The old practice used to be, the moment an injury to the brain was suspected, and the least depression of the bone appeared, to make an incision into the scalp. This is putting the patient to considerable hazard; for the simple fracture would, by the incision, be rendered compound. In simple fracture, then, when it is attended with symptoms of injury to the brain, deplete before you trephine; and when it is unattended with such symptoms, though there may be depression, deplete merely, and do not divide the scalp, unless the symptoms have not yielded to depletion. If the fracture be com-

pound, the treatment must be very different; because a compound fracture is followed very generally by inflammation of the brain; and it will be of little use to trephine when inflammation is once produced. It might be thought that it would be time enough to perform this operation when inflammation had appeared; but this is not the case; for if the inflammation comes on, the patient will generally die whether you trephine or not; and you will not arrest its fatal progress by trephining, but the operation will add to the danger of increasing the inflammation. When inflammation of the dura mater and membranes of the brain has been excited by the depression of the bone, you scarcely retard the progress to death by performing the operation. These principles may be illustrated by many cases. In this Hospital I saw two instances: one in a patient of Mr Cline, and another in a patient of Mr Birch. Mr Cline's patient was a man who had compound fracture from a blow on the head. A portion of bone had been depressed, and Mr Cline advised him to submit to the operation of trephining. The man said, "You may do what you like; I am no judge, but you are; so do what you please with me." Accordingly he walked into the operating theatre to be trephined; the portion of bone was removed; he walked back again to bed, and never had a bad symptom. A short time after, a patient under Mr Birch, with fracture and depression, was told that he was in a similar danger, and advised to undergo the same operation. He was, however, self willed, and obstinately refused to submit to the operation. Several days after the accident he was seized with pain in the head, and symptoms of inflammation in the brain; and when he became insensible, the operation of trephining was performed; but it did not arrest the symptoms, and he died of the inflammation. In Guy's Hospital two boys were admitted under very similar circumstances. The os frontis had, in one case, been broken by a kick from a horse, and in the other by a fall on the forehead. In one case the portion of bone was raised, and the boy did well: but the mother of the other boy interfered to prevent the operation of trephining; and though it was performed after symptoms of inflammation had appeared, he died. It is true, it happens, that fracture with depression is sometimes not followed by inflammation, even when the fracture is compound; but we cannot be certain of this; and if it ensue, we cannot save the patient by trephining at a late period. The rule, therefore, which I always follow, is this: When I am called to a compound fracture, with depression, which is exposed to view, whether symptoms of injured brain exist or not, I generally use an elevator, and very rarely the trephine. I put this instrument under the bone, raise it, and if it has been comminuted, remove the small portions of bone. The elevation of the bone is not followed by any mischief; but if you do not raise it, and inflammation follows, it will be too late to attempt to save the life of the patient.' pp. 228—231.

The full effects of depression are not always immediately felt; there are sometimes remote consequences of an unpleasant

nature, when the more immediate ones have been removed. Sir Astley relates a case in which insanity, produced by a depression of bone, was cured by an operation six weeks after the accident, when the depressed portion had become re-united to the cranium; and another, in which epileptic fits, having a similar origin, were removed by an operation a year after the accident. But a still more remarkable case was one which occurred to Mr Cline.

'A man by the name of Jones was admitted under Mr Cline, on the 9th of May 1800, into St Thomas's Hospital, from Deptford, where he had been seen by Mr Nunn Davie, apprentice to Mr Chandler, who advised that he should be sent to the hospital. When he was brought to the hospital, and placed under the care of Mr Cline, he was, in a great degree, destitute of sensation, and of voluntary motion; his pulse was regular; his fingers were in constant flexion and extension, nearly corresponding in frequency to his pulse. He had a depression near the superior edge of the left parietal bone. When hungry he was wont to grind his teeth; when thirsty to suck his lips; when he had occasion, or want to evacuate his faeces and urine, he moved about in his bed; but he could sit in the chair, when he voided them. Mr Cline trephined him, removing the depressed portion of bone, and he made a noise of complaint during the operation. The motion of his hands ceased during the operation, and the pupils of his eyes were directed forwards. At four o'clock that afternoon (the operation having been done at one) I found him raised in his bed; and when I asked him if he was in pain, he put his hand to the wounded part of his head. The next day he could say, yes and no, but had still a stupor. He gradually recovered: and when questioned as to the last thing which he remembered, it was taking a prize in the Mediterranean the year before; and he was found in a state of insensibility in June 1799: so that he had lived a year unconscious of his existence. He was discharged cured from the Hospital, on the 10th of July. The exact mode in which his accident had happened I could not learn; but he was found on board his ship in a state of insensibility, and was taken to Gibraltar, and to Deptford, in this state of deprivation of mental faculties and bodily power.

'It appears, therefore, that in cases of depression, we should not be prevented from trephining, however distant the period may be at which the accident occurred, if there be no inflammation; and the patient may, after a great interval, be restored to the powers of body and mind.' pp. 233, 234.

The amount then of Sir Astley Cooper's advice, with regard to the operation of trephining in cases of fracture, with depression, is this:—That where there is fracture and depression without a wound, we are not to trephine till we have given a full trial to the depleting practice. That where there is a

fracture and depression, with an external wound, we are to elevate the depressed bone; but that this is to be done before inflammation takes place, and that we are not to be prevented, by distance of time, from operating to elevate a depression where there are symptoms which probably arise from that cause, unless inflammation be present, this being always sufficient to deter us from the operation.

Lecture XII. Wounds of the brain may be accompanied by symptoms of concussion or compression, since these may be produced by the same cause which inflicts the wound; but a wound of the brain simply, even where a considerable portion of the substance of the brain is lost, does not necessarily impair the functions of the organ, though it does sometimes, since epilepsy and hemiplegia have been known to follow such an injury.

Where a portion of the brain has been lost, and the cranium is driven in, the piece of cranium driven in will occupy the place of the brain, and no symptoms of compression manifest themselves. In such a case it is safest not to elevate the bone, as it might give rise to extravasation or inflammation.

The danger from wounds of the brain proceeds, first, from the excess of that inflammation, a degree of which is necessary to the restoration of the part wounded; and second, from the formation of fungus. Inflammation is to be kept within proper bounds by the usual remedies. Fungus arises when the granulations begin to form, and is the result of their too speedy growth. Fungus is to be treated by pressure with lint wet in lime-water, and kept down by a strip of sticking plaster. It is sometimes necessary to apply caustic.

The inflammation which is produced by injuries of the brain, is described as follows:—

‘Upon the first approach of inflammation, the person complains of great pain in the head, very quickly falls into a comatose state, and when roused from this condition the pain is excessive; the scalp around the external wound becomes œdematosus; and if you press upon it, the impression of the finger is retained; the surface of the wound has a shining glossy appearance, and from the wound itself is discharged a fluid, of a sanious colour; the edges of the wound have a sloughy appearance; the countenance is very much flushed, the eyes are red, the skin is hot, and the carotid arteries beat with very great force; so much so, that if the collar of the shirt be open, you can see the pulsation of these arteries at some distance from the bed; this circumstance of itself would be quite sufficient to convince you that there was a great determination of blood to the brain. Next the patient is seized with rigors, and these follow in very quick succession; hemiplegia often attends,

and is generally situated on the opposite side of the body to that of injury to the brain. Violent convulsions of that side of the body occasionally occur; the patient remains in a comatose state, but when roused will give (until towards the very close of life) rational answers to such questions as may be put to him.' pp. 242, 243.

When inflammation of the brain terminates in suppuration, pus will be found, either 1. Between the dura mater and the skull, in which case the trephine may be applied, the matter evacuated, and life preserved; 2. In the longitudinal sinus of the dura mater; 3. Between the pia mater and the tunica arachnoides, or between the pia mater and the brain itself; in which case it is useless to trephine and open the dura mater; 4. In the substance of the brain itself.

' It is lodged in various parts, and the only circumstance very curious in this complaint is, that you would not suppose, from the symptoms, that matter was forming; they are those of compression rather than irritation. If the membranes of the brain be attacked with inflammation, symptoms of irritation will be present; but if the brain itself, they will be those of compression; and the circumstance which surprises a person who examines the brain of an individual, in which matter has been formed, is, that so little constitutional irritation existed during its formation.' p. 247.

The following singular case is related:—

' There is a curious specimen in the collection, taken from a child which I had under my care, and on whom I performed the operation of trephining. A young child was playing in a yard where there were some fowls feeding, when it received a wound on the head from the beak of a cock. The mother, hearing the child shriek, ran to the spot, and found that there was a small wound of the scalp, and, thinking there was no serious injury, she bound it up; but, a week afterwards, pain in the head came on, together with great constitutional irritation, and the child was brought to me. On examining the head, I found that a circular wound had been made in the bone, and that matter issued through the opening, I said to the mother, If the child is not better to-morrow, bring it to me, and I will make a more free opening for the discharge of the matter. The next day the child was brought to my house, and I performed the operation of trephining, when I found there was an opening in the dura mater and pia mater corresponding to that in the bone; the symptoms of irritation were relieved by the operation, those of compression still continued, and in three days the child died. On examining the part after death, I found there was a circular wound in the dura mater, the edges of which were hardened and thickened, and as you see in the preparation, a similar wound of the pia mater and brain, in size corresponding to the external opening, and an abscess between the pia mater and brain. At that time I had no idea that a wound of the description I have just men-

tioned could be produced by a bird of this size; but since that period I have seen an instance of a similar kind; an Indian pheasant made a dart at a child, which was playing near it as it fed, and struck a hole into the superior maxillary bone, just below the orbit.' pp. 249, 250.

The remarks which follow, upon the time at which inflammation may occur after an injury of the brain, although laying no claim to novelty, are very important to young practitioners. The circumstance that inflammation of the brain is liable to occur for many weeks after the original injury was inflicted, is very liable to be overlooked till we have been reminded of it by our own sad experience. When things seem to be going on smoothly; when all present symptoms are favourable, and promise a favourable result, it is extremely difficult for an inexperienced man to bring his mind down to the practical conviction that danger is lurking behind so fair an appearance. He cannot easily realize it.

' The time at which inflammation of the brain supervenes, after the injury has been received, is generally about a week, rarely less than that time; and this it was that led me to say, on another occasion, that inflammation of the brain was more slow in its occurrence than that of most other organs. It often happens that inflammation of the brain does not come on till a fortnight or even three weeks after the injury. Every surgeon who has written on the subject puts his reader on his guard about the distance of time that complaint supervenes after the accident; he tells you the patient is not safe till two or three weeks afterwards. If you read the works of Mr Pott on the injuries of the head, you will find the circumstance mentioned; and in the work of Mr Dease, of Dublin, it is distinctly stated, that inflammation of the brain is occasionally postponed to three or four weeks after the accident occurs, and even then the patient is not safe.

' I will give you a case relating to this subject. Dr Babington and myself were sent for to see a person, a clerk to the firm of Whitbread and Co. who, whilst riding on horseback, (being a short-sighted man) struck himself violently against the bough of a tree, and was brought to the ground by the force of the blow. He was taken to Croydon, where Dr B. and myself visited him. We found that he had been struck on the *os frontis*, just above the frontal sinuses, where there was a depression; and this was the first case in which I witnessed emphysema of the forehead produced by blowing the nose. We took all possible care of the patient, bled him, regulated his diet, &c. till the inflammation had subsided. He came to town three weeks after the accident; and about three months afterwards, he asked whether he might go to Rochester to spend a little time with some friends: we told him that he might, if he would pay attention to himself, keep his bowels open, and regulate his diet. After the lapse of a few days, he became extremely ill

with inflammation of the brain, and he died. On inquiry, we found that he had neglected the directions given him, and allowed his bowels to be costive.' pp. 253—255.

The operation of trephining, according to Mr Cooper, is not, as many have believed, a trifling or an easy one. He advises to proceed to it with far greater caution than has commonly been recommended. It will be required under the following circumstances:—

1st. Where there is extravasation of blood between the dura mater and skull.

2d. In fracture of the skull, with symptoms of compression continuing after depletion.

3d. In simple fracture with depression, and continued symptoms of compression.

4th. In compound fracture with depression, though unattended with symptoms of compression, it is best to trephine, or to raise the depressed bone by the elevator.

5th. When matter has formed.

'It generally happens in these last cases, when matter is seated between the dura mater and skull, that there is fracture; and this is an indication of the seat of the injury which has been done to the brain, it is also followed by rigors and other symptoms, which indicate its presence; still it would be right, in cases in which there is no fracture, and the other symptoms, rigors, &c. are present, to penetrate the bone, to see whether matter is lodged between it and the dura mater. When an abscess is placed beneath the dura mater, I have never seen a case recover from trephining for it, although that membrane has been opened for its discharge.*

'The operation of trephining used to be of the most complicated kind, requiring several instruments; to learn the names and use of which was of itself a study. It is now simple, and few instruments are necessary. Three will be quite sufficient; viz. a knife with a double edge, in order to separate the pericranium from the bone; an elevator; and a trephine, having a crown; and a pin which will allow of being moved with facility.' pp. 256, 257.

The following are his remarks upon the dangers and difficulties of the operation.

'Some surgeons say, that this is a trifling operation, and not difficult to perform; but they would deceive you; it is one of the most dangerous operations in surgery: whilst performing it, there is but a thin web between the instrument and the brain; cut through this, and destruction of life will generally be the consequence. Mr Hunter thought that when the dura mater was wounded the person scarcely ever recovered; which opinion, though not exactly borne

* If the dura mater be punctured, the pia mater should be punctured also, as adhesion will more readily occur.

out by the cases which have since occurred, show the impression made on the mind of a man who was so great an observer of nature. It is certain, that there is less danger when the dura mater and pia mater are both wounded, than where the dura mater alone is injured. I will tell you the reason: in the former case, where both the dura mater and pia mater are wounded, the brain immediately projects and fills the wound. If I were to pass quicksilver through an opening in the dura mater, where would it go? into the lower part of the spine, between the tunica arachnoidea and the dura mater; inflammation of the dura mater spreads over the whole cavity, as erysipelas does over the surface of the body; whereas, in the first kind of injury, fungous granulations will project through the opening, which would easily close by the process of adhesion. I have seen many instances where the dura mater and pia mater have been wounded, and the patients recover; but few where the dura mater has been wounded alone.' pp. 259, 260.

This Lecture concludes with a few remarks upon wounds of the scalp, which we would recommend to the especial attention of those practitioners, who deem all surgery to consist in the use of the knife and the saw, and are never satisfied or gratified with the treatment of any case, in which they have not seen their patient's blood.

' The cause of the danger attending such wounds is the free communication by blood vessels between the scalp and dura mater; as the vessels of the pericranium freely anastomose with those of the dura mater through the diploe of the skull, and, therefore, inflammation lighted up in the one, is readily extending its influence to the other. There cannot be, therefore, a more absurd and injudicious practice than that of wantonly making incisions through the scalp, to ascertain the exact extent of the injury which the bone may have received, when there are no symptoms to justify such a procedure; because such incisions produce new dangers to the patient, as well as add to that which the injury would itself produce. If, therefore, I am called to a case of injury of the head, in which there is apparent depression of the skull, yet there are no symptoms of injury of the brain, I would not render that fracture compound by making an incision through the scalp; and even if there were symptoms of injury of the brain, I would try the effect of free depletion, before I made an incision, as the loss of blood sometimes occasions the entire removal of the symptoms; but if there were already a wound in the scalp, and my finger passed down to a depressed portion of bone, I would immediately use an elevator to raise it, which may be generally done in children without difficulty, and in the adult would saw off a portion of bone to admit the elevator.

' The modes in which wounds of the scalp prove destructive to life are threefold: first, by producing what is called, an erysipelas-like inflammation on the head; secondly, by producing extensive

suppuration under the tendon of the occipito frontalis; thirdly, by rendering a simple fracture compound, they produce a more extended inflammation of the dura mater. With respect to the first of these, the following case of it is frequent. A man comes to the Hospital, and shows a wound of the scalp, which he has received, perhaps, in some drunken affray; a slight dressing is applied to the wound, and the case is considered as too slight for admission; in a few days the man returns with the scalp excessively tumid, and of a florid red colour, and he requests admission; his face soon becomes swollen, his eyes are closed by the tumefaction of his eyelids, and he has a high degree of constitutional irritation: in a day or two I have seen him in a low muttering delirium; he then becomes comatose, and dies with symptoms of compressed brain. Several of these cases have been examined, one more particularly by my former apprentice, Mr Callaway, who found that there was great effusion in the scalp, between the occipito frontalis and pérícranium, and also between the tunica arachnoides and pia mater. Although this inflammation is said to be erysípelas, and is treated as that disease by giving bark, and other tonics, yet I believe both its cause and its treatment are mistaken; as far as I am able to judge, it is the result of tendinous inflammation of the occipito frontalis, extending from thence to the skin of the head and neck, and that its treatment should be rather evacuant than repleting, as danger results from the extension of inflammation to the membranes of the brain.

‘ The second mode in which wounds of the scalp produce deleterious effects, is by exciting suppuration under the tendon of the occipito frontalis: such abscesses should be opened early, to prevent the matter extending over a large surface of the skull.

‘ The third mode in which wounds of the scalp prove destructive, is by incisions being made to trace fractures of the skull, producing in this way great aggravation of the inflammation, and extending its influence to the membranes of the brain. An incision in the scalp should, therefore, be never made but in cases of imperious necessity.’ pp. 260—263.

With this subject ends the first volume of the work.

(*To be continued.*)

SELECTIONS.

Extracts from 'Lectures and Observations in Medicine.' By the late MATTHEW BAILLIE, M.D.

(Continued from p. 215.)

Of some Diseases of the Neck.

THE most common disease in the neck is the swelling of one or more lymphatic glands. This is most apt to take place in young persons who have fair complexions and delicate constitutions. It is always a very tedious disease, and is seldom much benefited by medicine. The remedies which I have found of most use have been sarsaparilla combined with soda, Peruvian bark combined with soda, and some form of steel. These medicines will, however, often have but a very imperfect influence upon the complaint. Sea air and tepid sea-water bathing are often beneficial; but I think that the air and waters of Malvern are more useful than any other remedy. I have known a good many cases which had been but little improved by the common remedies, and by a residence upon the sea-coast, with all its advantages, which have afterwards got quite well by the patients residing three or four months at Malvern.

Bronchocele.—This disease is not very uncommon in this country: it is more frequent among women than men, and much more so among young than old persons. It is not often much benefited by medicine, but will frequently disappear of itself. Sometimes the swelling grows, even in this country, to an enormous size: and I have known one or two cases in which the patient was destroyed by the swelling compressing the trachea and the œsophagus. The medicines which I have found of most use have been burnt sponge, soda, and mercury, used externally, either as an ointment or in the form of plaster.

Chronic Inflammation of the Larynx and Trachea.—This disease occurs frequently in this country, and, upon the whole, I think is more common among men than women. It is often confined to the inner membrane of the larynx and the upper part of the trachea; but frequently it spreads downwards, even to the inner membrane of the bronchia. This disease always continues several months, and often, with short intervals of amendment, for years. Not unfrequently it lays the foundation of future phthisis. Remedies generally produce only a very gradual influence upon the disease, and sometimes none

at all. Benefit is not unfrequently derived in some degree from the repeated application, at short intervals, of leeches to the fore part of the neck, or the skin covering the upper bone of the sternum. The frequent application of small blisters to the same parts will occasionally be of use; but perhaps the most useful remedy is a small seton inserted under the skin of the side of the neck, very near the larynx. Internal medicines often produce very little good effect; but the medicine which I have found, upon the whole, to be the most beneficial, has been the extractum conii. I have sometimes directed five grains of it to be taken three times a-day for many weeks together, with manifest advantage.

Of the Quinsy.—I have but one observation to make with regard to this disease, which is of some little importance. It is usual to endeavour, throughout the course of it, to prevent suppuration from taking place, by the repeated application of leeches under the angles of the lower jaw. It is certainly very desirable that suppuration should be prevented, and that inflammation of the tonsils should gradually subside by resolution. I have found, however, by experience, that suppuration is by such means very often not prevented, but only that inflammation proceeds more slowly to this issue. Hence the patient suffers for a considerably longer time; and the suffering in this disease is often very great. If, therefore, one or two applications of leeches do not lessen materially the inflammation of the tonsils and velum pendulum palati, I should recommend the progress of the inflammation to be encouraged by the inhaling of warm vapour into the mouth, and the application of poultices to the external saucers. In this way the disease will go through its progress more quickly, and the patient will suffer much less.

Of some Diseases of the Chest.

I have very little to say either with respect to pleurisy or peripneumony. The earlier, after inflammation has taken place in the pleura or in the lungs, that blood is taken away from the arm, the sooner will the disease be subdued. Blood should in these diseases be taken away largely, and, if necessary, should be repeated again and again after short intervals. All other remedies are insignificant in comparison of the abstraction of blood from the system.

When this remedy has not been applied early enough, nor in sufficient quantity, and an abscess has been formed in the lungs, which has burst, patients have, in the greater number of

instances that I have seen, recovered but very slowly. Under these circumstances, the medical attendant has little to do but avoid mischief. The constitution should be moderately supported, without being too much stimulated. Moderate doses of myrrh, decoction of bark, or infusion of some bitter, are sometimes of use. Light animal diet, and even a little wine, are sometimes useful in such cases ; but great care should be taken that no new inflammation be excited.

In the course of my experience throughout many years, I have known a few instances of abscess being formed in the lungs, without any previous pain in the chest, or difficulty of breathing, or observable fever. Such patients, upon some exertion of the body, or even without any exertion, have suddenly coughed up a considerable quantity (perhaps half a pint or more) of pus ; and this has been to the patient the first intimation of disease. In such cases the inflammation of the lungs must have proceeded so slowly as to have produced little or no pain in the chest, and not to have alarmed the constitution so as to excite fever.

Of Phthisis Pulmonalis.—In the course of my medical experience, I have known one or two cases of patients who recovered from phthisis which was apparently fully formed. It is probable, however, that with regard to these cases I may have been mistaken ; and that, if I had inquired with sufficient accuracy into their history, I should have found that they were small abscesses of the lungs, of a common, and not of a strumous nature.

I have known a good many instances in which persons threatened with consumption have recovered by going into mild climates, or even into Devonshire or Cornwall ; but I do not recollect a single instance in which they recovered when the disease had decidedly been formed. Change of air should be adopted very early, in order to give it the best chance of success. Such a variety of accounts have been given by patients, and even by medical gentlemen, of the comparative advantage of one place over another abroad, that I have found it impossible to decide which is to be preferred. I am disposed, however, to think that Madeira, the Hyeres, some parts of Portugal, Malaga, Nice, and Naples, are the best. It is very possible that different places may suit better with the constitutions of different individuals ; and this conjecture, if well founded, may explain the cause of there being such a variety of opinions upon the subject. A patient should, if possible, spend two or three successive winters abroad, in order to give the best chance of the disposition to the disease being subdued.

When no active inflammation is going on in the chest in phthisis, I have sometimes found advantage from patients being allowed to take a little white fish or light animal food at dinner. In a very few instances I have found benefit derived from their taking one, or even two, glasses of wine, diluted with water, after dinner; but wine is generally improper.

I have known of no medicine which has been of permanent and substantial use in phthisis; but I have sometimes found a good deal of temporary advantage derived from myrrh, from ammonia, and from light bitters united to the acetic acid. The frequent repetition of blisters, or a seton inserted under the skin in some part of the chest, are occasionally of considerable use.

Of Hydrothorax.—When dropsy of the chest does not depend upon any diseased structure of the heart or lungs, I have found it much more readily affected by medicine than ascites or dropsy of the ovarium. Not unfrequently, under these circumstances, I have known water of the chest relieved, or for a time cured, by medicine.

The medicine which I have found most beneficial, has been mercury combined with squills and digitalis. Five grains of the pilula hydrargyri, combined with one grain of the dried powder of squills, and half a grain of the dried powder of digitalis, given twice or thrice a day, have, in many cases under my care, either very much mitigated or for a time removed the disease. There has been some advantage from the mercury affecting slightly the salivary glands. Squills and digitalis are by themselves much less efficacious than when combined with mercury.

I do not recollect one instance of hydrothorax being permanently cured, although I remember a good many cases in which the symptoms were repeatedly removed by the same means in the same patient.

Where the difficulty of breathing has been very great, and the legs and thighs have been much swelled from anasarca, I have known much relief afforded by a scarificator and small cupping-glass being applied above the inner and outer ankle of each leg; and I do not remember any mortification attacking these small sores. The difficulty of breathing in such cases probably depended in part upon the water accumulated in the cellular membrane of some parts within the chest, and this was gradually emptied through the small openings made in the skin of the legs.

Of Palpitation of the Heart.

Palpitation of the heart may take place at any period of life; but it is more common at an early period than any other,—as, for instance, from fifteen to twenty-five years of age. Perhaps, too, it may be more common in females than in males; but of this I am not very certain. At an early period of life, it does not in general depend upon any diseased structure of the heart, but either on a morbid irritability of the nerves of this organ, or upon some imperfect state of digestion. When it takes place from either of these causes, it always continues for a long time, (often, more or less, for two or three years,) but at length generally subsides. Rest of body and quietness of mind are two of the chief means which contribute to remove this disease. All quick motion of the body, and more especially walking up ascents, increases the complaint, and should as much as possible be avoided. Every thing which tends to excite or harass the mind has the same effect, and should be shunned whenever it is possible. To rest of body and mind should be joined very temperate diet; and, when this general plan of management has been continued for many months, or perhaps for a year or two, the disease usually subsides. Digitalis has sometimes been useful in mitigating this complaint, but frequently it produces no good effect.

Where the palpitation depends, either altogether or chiefly, upon the state of the stomach, it is gradually removed by temperance, by improving the condition of the stomach, and by keeping the bowels free from costiveness. I remember one case in which palpitation of the heart had taken place, and had continued for six months, in consequence of gout having attacked this organ. In this case the palpitation ceased suddenly and entirely when the gout attacked one of the feet in a full and decided form. This person is now alive, and has continued generally in good health, although it be nearly twenty years since the attack of palpitation.

In some young persons, palpitation depends upon an enlargement of the several cavities of the heart, produced not unfrequently by rheumatism attacking this organ. This cause of enlargement of the heart was overlooked by the physicians of this country, till it was discovered by the sagacity of my esteemed friend, the late Dr David Pitcairn. The enlargement, in general, goes on increasing till life is destroyed; but I have known two cases where the enlargement stopped at a certain point, the increased action of the heart in a great measure subsided, and the patients acquired a tolerable share of

health. They are both now alive, and they have the prospect of living, with care, to the ordinary term of life. Such a fortunate issue is very rare; but the disease may be generally retarded in its progress by much rest of body, quietness of mind, and a very temperate mode of living. Wine and every other fermented liquor should be avoided; and the patients, under such circumstances, should live almost entirely upon vegetable food.

At the middle and more advanced periods of life, palpitation of the heart often depends upon a diseased structure of some of its valves. This condition of the heart does not admit of any remedy, but must gradually become worse, until life be extinguished. But the symptoms may be mitigated, and the progress of the disease retarded, by little exertion of the body, by great temperance, and by a few ounces of blood being occasionally taken from the arm.

Angina Pectoris.—This distressing disease almost constantly depends upon an ossification of the coronary arteries of the heart, and admits of no effectual relief from medicine. I have met with two cases, however, in the course of my medical experience, in which symptoms exactly resembling those of angina pectoris depended upon an imperfect digestion; and the patients ultimately recovered entirely, by correcting the disordered condition of the stomach.

Of Diseases in the Cavity of the Abdomen.

Ascites.—With respect to this disease I have very little to say. When it depends upon a morbid state of any of the abdominal viscera,—as, for instance, the liver or the spleen,—it is never permanently removed, and very seldom even relieved, till the morbid condition of these viscera is cured, if this event should fortunately take place. Even where the viscera in the abdomen are sound, or at least cannot be discovered by an accurate examination to be otherwise, ascites is rarely, according to my experience, cured by medicine. The ordinary diuretic medicines, as squills and digitalis, have commonly very little effect upon it. The medicines which I think, upon the whole, to have most influence upon this species of dropsy, are super-tartrate of potash and small doses of elaterium. In two, or perhaps three cases, during my medical experience, ascites has gradually got well without medicine, after the common remedies had been sufficiently tried and had failed. I can entertain no doubt, from some late publications, that taking away blood from the arm will often be a valuable remedy in ascites, where

there has been too much arterial action, or even some degree of inflammation, in the early part of the disease: but of this remedy I have not had sufficient personal experience to enable me to appreciate its value.

Inflammation of the Peritoneum.—Where this disease has not been connected with any peculiarity of season, or any epidemiical complaint, I have found it to be cured by bleeding and purging, like other inflammations. Upon the whole, however, I think that it has been more relieved by repeated applications of leeches, than by general bleeding. I do not wish it to be understood that general bleeding is of no advantage in peritonitis, for sometimes it produces the greatest benefit. I think, however, that, in most cases, more benefit will be derived from the repeated application of leeches, according to circumstances, than from a repetition of the general bleeding. The purgative medicines which have appeared to me to be of most value, are calomel and the neutral salts.

Of some Affections of the Stomach.—There is no complaint more common in this country than an imperfect condition of the functions of the stomach. This generally shows itself by more or less of flatulence, by acidity, by a bitter taste occasionally felt in the mouth, and often by some degree of costiveness. This condition of the stomach generally arises from something wrong in the quantity or quality of the food,—from anxiety of mind,—and from a due degree of exercise not being regularly taken. It makes its progress very gradually, continues always for some months, and often even, more or less, for years.

The first object of attention should be to remove, as far as possible, the causes which produce it. Every kind of food should be avoided which the patients may have found, from their own experience, to have disagreed with their stomach. Most commonly, animal food that is very fat, or much salted or fried, is difficult of digestion, and should either be eaten very sparingly, or should be altogether avoided. Young and white animal food is in general more difficult of digestion than what is brown and of middle age. The vegetables which are eaten should be very well boiled, and should be taken sparingly by such persons as are subject to flatulence or acidity. The waxy potatoe is almost constantly very difficult of digestion, and in general should be avoided altogether. There should never be so much food taken at a time as to give the feeling of fulness or distension in the stomach; and, except under very particular circumstances, there is no advantage of eating oftener than three or four times in twenty-four hours. The best common beverage in disordered conditions of the stomach is water, or toast and

water; and three or four glasses of wine may be taken at or after dinner, according to the habits of the patient, or other circumstances. That wine is to be preferred which agrees best with the stomach, of which he is himself the most competent judge. Daily exercise is almost constantly necessary in order to preserve good digestion. Riding on horseback is upon the whole the best, for it gives a motion to the abdominal viscera which no other exercise is capable of; but walking is also very useful. A combination of the two is preferable to either; for riding on horseback chiefly exercises the abdominal viscera, and walking chiefly exercises the limbs and the thoracic viscera. Anxiety of mind should be avoided, whenever it can fairly be done; but it is often impossible to take advantage of this remedy.

With respect to medicines, there are none for this complaint which can be called specific. The most beneficial, however, which I have known are rhubarb, and some form of bitter medicine combined with alkalies. Eight grains of rhubarb formed into pills with soap, taken every night at bed-time, and some bitter, as infusion of cascarilla, calumba, quassia, or gentian, with some grains of soda or potassa dissolved in it, taken in the morning and before dinner, will often be very useful in this kind of disordered stomach. These remedies should be continued for five or six weeks at a time, should be omitted for two or three weeks, and occasionally resumed. If the alvine evacuations should be considerably lighter in their colour, or much darker than natural, mercury, given in moderate doses, and not for so long a time as to injure the constitution, will often be of great use. The large and indiscriminate employment of mercury in complaints of the stomach has, I think, been often very hurtful. Where acidity has been particularly prevalent in the stomach, I have sometimes found it more effectually corrected by the diluted mineral acids than by alkalies. Ten or twelve drops of the diluted sulphuric or diluted nitric acid, mixed with an infusion of some bitter, and taken twice a-day, will sometimes be very beneficial in this condition of the stomach.

There is an affection of the stomach in which the digestion is very imperfect, and in which considerable quantities of a transparent viscid mucus is formed. This often produces nausea, and is occasionally brought up by vomiting. According to my experience, this condition of the stomach has been frequently little benefited by medicine; but sometimes I have found the *tinctura benzöes composita* of considerable use. A drachm of it may be taken, mixed with water and some mucilage of gum acacia, three times a-day.

There is another affection of the stomach, less common than the former, but far more serious,—viz. where the stomach throws up in large quantity a fluid like cocoa. A quart of this fluid will often be thrown up at a time; and this will frequently be repeated for many days together. This condition of the stomach is sometimes connected with a diseased state of the liver, but sometimes it is independent of it, there being, at least apparently, no disease in this latter organ. In several instances it has proved fatal; but in others, and especially in two cases which I recollect, the complaint subsided for several months at a time, and the persons enjoyed in the intervals tolerable health. This state continued many years, and the patients are still alive. In one case I had an opportunity of examining the condition of the stomach after death. It was very capacious, and was half-filled with this brown fluid, but did not appear to be at all diseased in its structure. The neighbouring viscera, as the liver and spleen, were (as far as I recollect) perfectly sound. The fluid would appear to be formed by a diseased secretion of the inner membrane of the stomach, without any apparent morbid structure.

This disease, according to my experience, is but very little influenced by medicine or by diet. In two or three cases, some benefit seemed to be derived from astringent medicines combined with moderate doses of opium,—as, for instance, from tincture of kino, or tincture of catechu, with a few drops of laudanum, taken three or four times a-day. The bowels should be at the same time kept free from costiveness.

In some cases the stomach will lose almost entirely the power of digestion; the patients will become pale and emaciated, and appear as if they were affected by some fatal visceral disease: at the same time no morbid structure in the region of the stomach or liver can be detected, by the most attentive examination. In some of these cases, the patients have been completely restored to health by a course of the Bath waters.

[*To be continued.*]

INTELLIGENCE.

MASSACHUSETTS MEDICAL SOCIETY.

THE annual meeting of this Society was held at the Medical College, Mason-Street, on Wednesday, June 7th, 1826.

After transacting the usual business of the Society, the annual address was delivered by Dr Joseph H. Flint, of North-

ampton. Upwards of 130 members attended this meeting, and dined together at the Exchange Coffee House.

The following gentlemen were elected counsellors for the ensuing year, viz. :—

For Suffolk District.—Drs Aaron Dexter, William Spooner, John G. Coffin, John Dixwell, James Jackson, Benjamin Shurtleff, John C. Warren, John Gorham, John Randall, George C. Shattuck, John B. Brown, Walter Channing, jun., Jacob Bigelow, George Hayward, Enoch Hale, jun., Solomon D. Townsend, John Ware.

For Essex District.—Drs Edward A. Holyoke, Benjamin L. Oliver, John D. Treadwell, Oliver Prescott, James Gardner, Richard Hazeltine, Nathaniel Bradstreet, Nehemiah Cleaveland, Joseph Kittredge, Jeremiah Spofford, Abel L. Peirson.

For Middlesex District.—Drs Amos Bancroft, Calvin Thomas, Abiel Heywood, Rufus Wyman, James P. Chaplin, Thomas Bucklin, John Walton, Abraham R. Thompson, Josiah Howe, John Hart.

For Worcester District.—Drs Abraham Haskell, Stephen Batchelder, jun., John Green, Benjamin F. Heywood, John Homans, Daniel Thurber, Charles W. Wiider, Amos Parker.

For Hampshire District.—Drs Elihu Dwight, John Stone, Alpheus F. Stone, David Hunt, Willard Arms, William Hooker, Joshua Frost.

For Berkshire District.—Drs Benjamin Rogers, Henry W. Childs, William H. Tyler, Robert Worthington, H. Bartlett, Royal Fowler.

For Norfolk District.—Drs Amos Holbrook, Robert Thaxter, Nathaniel Miller, John Bartlett, Samuel Bugbee, Jeremiah Stimpson, Ebenezer Alden.

For Plymouth District.—Drs Hector Orr, Cushing Otis, Andrew Mackay.

For Bristol and Barnstable District.—Drs Benjamin Billings, Alexander Reed, — Johnson, Josiah Batchelder.

At a meeting of the Counsellors, holden June 8th, 1826, the following gentlemen were elected officers of the Society, viz. :—

JAMES JACKSON, M.D. *President.*

ABRAHAM HASKELL, M.D. *Vice-President.*

JOHN DIXWELL, M.D. *Corresponding Secretary.*

GEORGE HAYWARD, M.D. *Recording Secretary.*

JACOB BIGELOW, M.D. *Treasurer.*

ENOCH HALE, Jr. M.D. *Librarian.*

CENSORS.

1st District.—Drs John Dixwell, James P. Chaplin, Rufus Wyman, John Gorham, Walter Channing, jun.

2d District.—Drs John Green, John Homans, Benjamin F. Heywood, Edward Flint, Charles W. Wilder.

3d District.—Drs Elihu Dwight, William Hooker, Joseph H. Flint, Daniel Collins, Elisha Mather.

4th District.—Drs Benjamin Rogers, John Delamater, A. Perry, Charles Worthington, William H. Tyler.

MEDICAL GRADUATES IN HARVARD UNIVERSITY IN 1825, WITH THE SUBJECTS OF THEIR THESES.

HORATIO ADAMS, A.M., *Sulphate of Quinine.*

STEPHEN BALL, Jun. *Croup.*

OLIVER H. BLOOD, A.M. *Respiration.*

JOSEPH CLARK, *Dysentery.*

SAMUEL DODGE, A.M. *Sympathy of Stomach.*

JOSHUA B. FLINT, A.M. *Sympathy.*

JOHN FLINT. *Fever.*

RALPH FARNSWORTH, A.M. *Functions of the Skin.*

THOMAS B. KITTREDGE, *Diabetes.*

HENRY LITTLE, A.M. *Materia Medica.*

JONAS H. LANE, A.M. *Colchicum.*

JOHN MASON, A.B. *Delirium Tremens.*

JULIUS S. MAYHEW, *Assimilation.*

SAMUEL B. PARRIS, A.M. *Symptoms.*

JOSEPH PALMER, A.M. *Bloodletting.*

J. B. RICHARDS, A.M. *Erysipelas.*

HORATIO ROBINSON, A.M. *Colchicum Autumnae.*

DAVID H. STORER, A.M. *Hearing in Fishes.*

S. GREELY STEVENSON, A.M. *On Theory of Diseases.*

ISAAC P. SMITH, *Dropsy in the Chest.*

GEORGE M. SMITH, *Delirium Tremens.*

ABSALOM THOMPSON, *On Intermittent Fever.*

WILLIAM WORKMAN, *Digestion.*

JACOB WYETH, A.M. *Necrosis.*

MEDICAL LECTURES IN HARVARD UNIVERSITY.

THE Medical Lectures of Harvard University will begin at the Massachusetts Medical College in Boston, on the third Wednesday in November, at 9 o'clock, A.M.

Anatomy and Surgery,	Dr Warren.
Chemistry,	Dr Gorham.
Materia Medica,	Dr Bigelow.
Midwifery and Medical Jurisprudence,	Dr Channing.
Theory and Practice of Physic,	Dr Jackson.

THE Medical Lectures of the University of Vermont will begin at Burlington, on the first Wednesday of September, and continue fourteen weeks.

Anatomy, by William Anderson, M.D.

Surgery and Obstetrics, by Henry S. Waterhouse, M.D.

Chemistry and Natural Philosophy, by George W. Benedict, A.M.

Theory and Practice of Physic and Materia Medica, by William Sweetser, M.D.

LIST OF NEW PUBLICATIONS.

AMERICAN WORKS.

Observations on the Medical Character; addressed to the Graduates of the College of Physicians and Surgeons of New-York, at the Commencement held on the 4th of April, 1826. By David Hosack, M.D. 8vo. pp. 24. N.Y.

Introductory Lecture, delivered at the Commencement of the Second Session of the Medical College of South Carolina. By Samuel Henry Dickson, M.D. Professor of the Institutes and Practice of Medicine. 8vo. pp. 31. Charleston, S.C. W. Riley.

Observations upon the Autumnal Fevers of Savannah. By W. C. Daniell, M.D. 8vo. pp. 152. Savannah. W. T. Williams.

Anatomy taught by Analysis; a Lecture, introductory to the Course delivered in the Philadelphia Anatomical Rooms, fifth Session, 1825-26. By John D. Godman, M.D. 8vo. pp. 23. Philadelphia.

The American Family Physician, by the late Thomas Ewell, M.D. of Virginia. Addressed to the Heads of Families in the United States. 8vo. Georgetown, D.C.

A Manual of Chemistry on the Basis of Professor Brande's; containing the Principal Facts of the Science, arranged in the order in which they are discussed and illustrated in the Lectures at Harvard University, N. E.; compiled from the works of Brande, Henry, Berzelius, Thomson, and others. Designed as a Text-Book for the use of Students and Persons attending Lectures on Chemistry. By John W. Webster, M.D. Lecturer on Chemistry in Harvard University. 8vo. pp. 603. Boston: Richardson & Lord. 1826.

The Importance of the sciences of Anatomy and Physiology, as a branch of General Education; being an Introduction to a course of Lectures to the Upper Classes in Brown University. By Usher Parsons, M.D. Cambridge. pp. 31. Hilliard & Metcalf, 1826.

WORKS IN PREPARATION.

Dr Parsons, of Providence, (R.I.) has in preparation, a new translation of the Surgical Writings of Celsus.

Dr Bradford, of Cambridge, is engaged in translating for the press, the System of Anatomy, by Meckel. We trust that the high reputation of this author, and the acknowledged excellence of the work, will secure for the translation a favourable reception.

FOREIGN WORKS.

Medical and Surgical Cases; selected during a Practice of 39 Years. By Edward Sutleffe. Vol. II. London.

A Letter, addressed to the Medical Profession on the Encroachments on the Practice of the Surgeon-Apothecary, by a new set of Physicians. By Medico-Chirurgus. London. 1826.

Practical Observations on the Convulsions of Infants. By John North, Surgeon-Accoucheur. London. 1826.

Observations on M. Laennec's method of Forming a Diagnosis of Diseases of the Chest, by means of the Stethoscope, and of Percussion; and upon some points of the French Practice of Medicine. By Charles Scudamore, M.D. F.R.S. London. 1826.

The Anatomy of the Brain, with a General view of the Nervous System. By G. Spurzheim, M.D. Translated from the unpublished French M.S. By R. Willis. With eleven plates. London. 1826.

Doubts of Hydrophobia, as a specific disease, to be communicated by the Bite of a Dog; with experiments on the supposed Virus generated in that Animal, during the complaint termed Madness. By Robert White, Surgeon. London. 1826.

Thoughts on Medical Education, and a Plan for its Improvement: addressed to the Council of the University of London. 1826.

Remarks on the present state of the Medical Profession; showing chiefly the necessity for the division of Labour in its Practice. By Leonard Stewart, M.D. London. 1826.

Contributions towards the Medical History of the Waters, and the Medical Topography of Cheltenham. By John Fosbroke. 12mo. pp. 200. 1825.

A short Description of the Bones; together with their several connexions with each other and with the muscles. By John F. South. 18mo. pp. 140. London.

Myology, illustrated by Plates, in four parts. Part I. Muscles of the Thigh, Leg, and Foot. Two dissected plates, with explanations. Imperial folio. By Edward William Tuson, M.D. London.

Observations on the Lepra Arabrum or Elephantiasis of the Greeks, as it appears in India. By Whitelaw Ainslie, M.D. London. 1825.

Observations on the Efficacy of White Mustard Seed; with a particular view to its recommendation as a means of augmenting the beneficial use of the Cheltenham Waters. By Charles Turner Cooke. pp. 87. 8vo. 1826.

A critical Inquiry into the ancient and modern Method of curing Diseases in the Urethra and Bladder; and of the successful practice of Vesicæ Lotura for the Cure of Diseased Bladders. By Jesse Foot. 8th edition by Jesse Foot, Jr. pp. 200. London. 1826.

A Plate of the Eye, engraved by Stewart, from a drawing by A. G. Rowlands, after the plates of Ziinn and Soemmering. 1826. London.

An Essay on the Nature, Causes, and Treatment of Water in the Brain. By William Shearman, M.D. pp. 123. London.

Recherches Experimentales sur les causes du Mouvement du sang dans les veines; memoire lu à l'Academie des sciences le 8 Juin 1825. Par David Barry, M.D. avec le Rapport de Comissaires de l'Institut de France. Paris, 1825. pp. 74. 8vo.

Dissertatio Physiologica Inauguralis de Absorbendi Functione. By Thomas Hodgkin, M.D. 8vo. pp. 78.

TO CORRESPONDENTS.

Communications from Dr Dixwell, Dr Jeffries, and Dr Parsons, will be inserted in the next number.

ERRATUM.

Page 133, line 14 from bottom, for *sealed* read *healed*.

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OCTOBER, 1826.

[NO. IV.

The proper influence of the Pulse, in its application to the Diagnosis and Prognosis of Diseases. By MILO L. NORTH, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

IT has been said, 'that young students have often been led to waste valuable time, and to rely more on that one symptom, the pulse, than was either instructive to themselves or serviceable to their patients.' It is true that physicians, from a long and assiduous study of diseases by the bed-side, may judge correctly, in a great majority of cases, from the general assemblage of symptoms, without reference to the pulse. It is, however, greatly to be feared, 'that while such men are quietly sailing in the ship of science, they forget that the disciple cannot arrive without a boat.'

It cannot be concealed that several late journal writers have countenanced the opinion that the pulse, in its application to symptomatology, is to be regarded with great diffidence, and that the discerning practitioner can, from other more accessible sources, obtain knowledge of the operations of the system upon which he may more safely rely. Nor can it be denied, that there are men of experience and discernment who never appear in the journals, that take but little notice of the circulation in their daily practice. Amidst the frequent vacillations of medical opinion, I cannot but apprehend that the propensity to disregard the pulse is at present increasing. Were this confined to the experienced, the fact would pass unnoticed. But any fashion or dogma that goes to paralyze the exertions of our younger brethren, or divert their attention from the most prominent points of diseases, is to be deprecated by every

friend of the profession. Abridgment and labour-saving are the order of the day. The physician who performs his daily rounds with nothing but calomel, tartar emetic, opium, a few pills, and the lancet, is in fashion with a busy world. And the medical student who expects to acquire such a ken that he can explore a disease by the external symptoms, without a minute acquaintance with the varying states of the arterial circulation and their connexion with disease, has set out in accordance with the same spirit.

It is not asserted that the pulse can, in no sense, be styled '*fallacissima res.*' It doubtless *is* a most fallacious thing in the hands of a man who would rely exclusively upon it, and make no allowance for mental emotion, time, diet, exercise, position, idiosyncrasy, &c. It would seem that Celsus himself had this opinion; for in the same breath in which he speaks of its fallacy, he says we trust it most of all. '*Venis enim maxime creditus, fallacissimæ rei.*' He then proceeds to particularize the causes of temporary disturbance of the pulse, age, sex, temperament, (corporum natura) the sun, bath, exercise, fear, rage, and other affections of the mind, and particularly the arrival of the physician. He then gives directions how these agitations may be allayed in order that a more clear understanding of the pulse may be obtained.* We should therefore conclude from the passage, taken with its connexions, that Celsus estimated the importance of the pulse more justly than some moderns do, and consequently felt more anxiety that the reader should be fully informed of the circumstances that rendered it deceptive. This appears more probable from the ample directions and great stress laid upon this symptom in the writings of Galen. It is no doubt a fact, that the more information a physician expects to obtain from the pulse, in connexion with other symptoms, the more light will he receive from that quarter in his pathological investigations: and it appears to me equally plain, that when a man feels uncertainty whether much dependence can be placed upon it, he must remain totally unacquainted with the nature of its communications. I cannot but think that it is this scepticism more than any organic defect of touch or want of definite terms, which has rendered it fashionable to speak lightly of the indications of the pulse. It has appeared to the writer of this article unaccountable that when, by a paramount regard to this symptom, taken in relation to the whole circumstances of the case, he has been so borne out in the diagnosis and prognosis

* Celsus Lib. III. Cap. vi.

of diseases as to feel peculiarly indebted to it, others should consider it a matter of so little consequence. Perhaps this very avowal may procure for him the imputation of being yet in the rudiments of the art. Be that as it may, the pulse has proved to him so faithful and constant a guide in the intricacies of medical practice, and particularly in the prognosis of diseases, that he ventures most earnestly to recommend to his junior brethren and to medical students an assiduous attention to it, as an oracle that will yield a correct response to a great proportion of their inquiries.

For this purpose it is not necessary that we should make ourselves masters of a great variety of terms descriptive of the pulse. The Chinese, who are known to surpass all other nations in their pretensions, and, perhaps I ought to say, attainments on this subject, have only four divisions of pulse: the quick and the slow, the superficial and the profound. If to these correlative terms, *frequent*, *slow*, *weak* and *strong*, we add *full*, *small* and *intermittent*, we have a set of terms adequate, it is believed, to the description of every case that may occur. Having made these preliminary remarks, I proceed to a more particular consideration of the comparative importance of the pulse in different diseases.

But in order to form a just estimate of the dependence to be placed on this symptom, it seems proper in the first place to notice some of the most prominent exceptions to the general rule; being fully sensible that, without an habitual reference to these and the causes of temporary disturbance, the practitioner will never experience the whole benefit to be derived from being master of the pulse. So strenuous do I feel on this point, that I could adopt the beautiful paradox of Celsus, and, while enforcing an increased confidence in the pulse, style it a deceptive guide.

No man who has had his eye on the various epidemics and eruptions that have appeared in this country for the last twenty years can doubt, that in certain instances the vascular system does not come within range of the morbid influence, but that other tissues are subjected to its fatal action that are not associated with the blood-vessels, and therefore that the pulse conveys no accurate notion of what is passing within.

Alibert, who makes the cerebral system and nerves the seat of fever, has the following: 'It may happen, from some cause which we shall not undertake to develope, that the blood-vessels do not participate in the primitive affection of the nerves.' 'Sometimes in malignant fever there is a want of sympathy between the nervous and vascular systems. In this case the

pulse continues regular, notwithstanding the severe affection of the brain.* Whatever hypothesis we adopt to explain this occasional aberration from the general laws of the system, there is no doubt of the fact; and in our first acquaintance with new epidemics we should bear it in distinct remembrance.

The first instance I shall adduce in illustration of the above pathological principle is the *cynanche maligna*. In the fatal cases which I have seen, both sporadic and epidemical, the pulse has been but little accelerated till just before death. Even after the mucous membrane has extensively sloughed from the posterior part of the pharynx and tonsils, the countenance become livid, and the breath so fetid as to render the air of the room very offensive, I have known the pulse not to exceed ninety in the minute in a child not ten years old. The same is the fact in all cases of idiopathic mortification that have fallen under my notice.

In describing the *fever* which lately prevailed in Berlin, Con. two or three gentlemen of the vicinity, on whose statement I placed full reliance, remarked in my hearing, that in their indications of cure they were accustomed to depend very little on the state of the vascular system, as the morbid influence did not appear to fall upon that system, but exerted its effects upon parts so deep, and in so covert a manner, as to yield very obscure information of what was passing within. It has never fallen to my lot to witness an epidemical Spotted Fever; but I can readily conceive, that in the rapid and complete prostration of all the energies of the system, the state of the circulation can bear but a feeble share in the estimate the physician makes of the case. I am aware that among those who have been in the field of action there has existed a difference, both as to the pathology and treatment; and can readily conceive the aberration of the arterial system we are now considering may have been supposed to exist in some instances without just grounds.

Professor Smith of New-Haven, in speaking of the epidemic pneumonia of 1812-13, which unhappily had a much wider range than the last mentioned disease, has the following remarks: 'the pulse also was less affected than I had ever seen it in acute diseases of that danger and magnitude.' 'The symptoms that contra-indicated bleeding were a soft and often-times a weak pulse, not much accelerated; and though it was sometimes pretty full, yet it had not that hardness, nor did it

* Alibert on *Intermittents*.

meet the finger with that force, which we generally meet with in pneumonic inflammation.* From the last remark it is apparent, after all, that Dr Smith was influenced by the state of the pulse to dispense with the accustomed evacuations in inflammation of the lungs.

Dr Rush, whose great reliance on the pulse is well known, says 'a regular pulse attended the last stage of yellow fever in Philadelphia in many instances.' In describing the intermitting and remitting fever of low and marshy countries, Sir John Pringle mentions, as most remarkable, that a few of those who died were observed to have a regular pulse, though very near their end. I shall add but one more example in support of the pathological principle in question.

Cleghorn, in that part of his work on the Diseases of Minorca which treats of the fevers which prevail during the winter and spring months, thus describes the pleurisy of 1746. 'The pulse was likewise very variable, not only in different persons, but in the same person at different times;—and I have frequently found it like that of a man in health, or even slower than natural, while the patient was in the greatest danger; so that it could neither be depended upon as a prognostic sign or as an indication of cure.'† Dr Font, an eminent practitioner, in that island, says of the same epidemic, 'pulsus, quoad celeritatem parum distat a naturali,' and that in the cases in which this state of pulse existed, the same vigorous course of measures ought to be pursued. Yet such was the violence with which this disease fell upon the head, chest and abdomen, that those gentlemen were compelled to abstract the almost incredible quantity of four pounds of blood within the first twenty-four hours, in obstinate cases adding 2 or 3lbs. on the following days; and in this way only were they able to prevent an early and fatal suppuration of the viscera.

The instances already adduced are all that occur to my recollection, excepting, perhaps, some cephalic diseases: I proceed therefore to consider the proper influence of the pulse upon our judgment in our daily rounds of medical practice.

I know of no disorder in which the young practitioner is more liable to be misled than *certain painful affections of the head*. He has a clear recollection of the symptoms of inflammation of the brain, and has read many cases of insidious, organic disease of that viscus with the dissection. When, therefore, he is called to a patient with a heavy throbbing pain of

* Smith's edition of Wilson Philip.

† Cleghorn's Diseases of Minorca. p. 152.

the head, slight intolerance of light and sound, tinnitus aurium, disturbed sleep, foul tongue, nausea and costiveness, he immediately sets about diminishing the supposed inflammatory action by bleeding, cathartics, blisters, leeches, &c. In some instances that nearly resemble the above combination of symptoms, he finds that this energetic course has mitigated the pain of the head but very little, and that the patient is rapidly losing flesh and strength. In this case the pulse would have been found at the outset, if rightly examined, to be easily compressed. The patient may be a delicate female with disorder of the bowels. This disease, notwithstanding the usual prohibition of opium in cerebral affections, will yield to a combined use of Dover's powders and calomel evening and morning, mild laxatives every evening, with the addition of chalybeates and vegetable tonics after the nerves are quieted and the secretions regulated. I could state several such cases in detail, that have fallen under my observation, but it would be unnecessary. Since commencing this article, an instance of the above detailed symptoms in a female of 20 has occurred to me, with delirium for several days, great intolerance of light and sound, and spasmodic twitching of the whole frame, that has recovered under the use of Dover's powders, pil. hydrargyri, compound assafoetida pills and antispasmodics.

In *apoplexy, palsy, compression and concussion*, the information to be derived from the pulse is too obvious to need any more than to be mentioned.

Notwithstanding the proteiform* nature of *hydrocephalus*, no

* The following case, taken at the bed-side of the patient, is in confirmation of the general opinion that when the pulse is *below the natural frequency*, particularly if it be *intermittent*, there is just reason to apprehend organic disease of the encephalon.

Frances Nye, aged about four and an half years, began to complain, Tuesday, 23d July, 1826. She slept most of the time. When awake complained of pain in the bowels. On Wednesday, (2d day of disease) the same symptoms. Occasionally able to go up stairs. Took pulv. aloes c. canella, which operated well. Thursday, took medicines for worms. Friday, complained of pain in the bowels. Slept the rest of the time. Saturday, took an emetic, which the mother said operated well, discharging yellow viscid fluid. Sabbath, still sleepy, complaining occasionally. At four o'clock P.M. ate freely. Soon after became delirious. Vomited her supper. In the evening I saw her for the first time. After vomiting two or three cathartic powders, I gave her an emetic, which operated in the usual manner, discharging food and sour liquid. The following is an abstract of her symptoms to Friday, 11th Aug., the day of her death, and the seventeenth day from her attack. *Circulation.* Pulse 63, strong and intermittent when I first saw her. From 63 to 95 in the course of the disorder. Sometimes scarcely any irregularity. Most generally intermitting and beating as if the heart had some obstacle to overcome. Has been generally below 80. *Countenance*, sunken, and face pale. Sometimes a redness upon one cheek, or red spots, which would disappear in a few minutes. *Temperature.* She has never had a heat much above natural. On the 12th day of the disease a bright red eruption spread over the body, which disap-

medical man can be prepared promptly to meet and detect its various idiopathic and secondary forms, who has not deeply impressed on his memory the state of the pulse in its different stages, together with its general pathognomonic features. Among the numerous and discordant notices of this disease to be found in our periodical works, I beg leave to refer to a paper by Dr Abercrombie of Edinburgh in a former number of this journal, as replete with interesting cases and dissections, with important practical deductions.

In *inflammations of the throat*, a steady reliance may be placed upon the pulse.—It has already been mentioned, that in *cynanche maligna* the vascular system is but little affected. This circumstance, instead of diminishing, greatly enhances the value of this symptom. It is true that a physician of experience can generally distinguish this malady by an inspection of the fauces, viewed with the general symptoms. And here I beg to remark once for all that, in my almost exclusive consideration of the pulse, I would by no means divert the young physician's attention from the *whole* case, my object being simply to persuade him to consult it on all occasions as a guide that will not withhold its friendly aid in the hour of need, and one whose responses will become the more intelligible the more they are sought.—In *cynanche maligna* and *cynanche tonsillaris* exactly the same parts form the seat of the morbid action. Yet in the former a mistake in the diagnosis has often proved fatal. I once knew a fine lad of about ten years of age,

peared on the occurrence of a diarrhoea. *Alimentary Canal.* Tongue covered with a slight fur, but mostly gone by the eleventh day. No redness or canker. Nausea and vomiting never recurred after the emetic administered the first time I saw her. Bowels extremely torpid, requiring three or four times as much to produce evacuations as would be needed in ordinary diseases. The ninth day, after taking several doses of calomel, she had several stools the colour of green corn blade, and of the consistence of tar. Tenth day, the stools more easily procured, and the patient appeared so much roused as to notice a wasp flying about the room. Thirteenth, bowels tumid, and diarrhoea commenced. There was more heat about the bowels than elsewhere, till the discharge of green stools. *Cerebral and Nervous System.* I never perceived any sensible dilatation of the pupils. Mrs Nye thinks they were dilated two or three days before the child's death. No starting at noises or light at any time. Since I saw her she has never given any intelligible account of her feelings. When asked if she had pain in the bowels, she would answer yes, in a whining voice. She twice said her head ached. Had turns of great restlessness, particularly in the night. Took medicines well. Scarcely ever called for the stool, but would use it when set over it. On the twelfth day there was paralysis of the right side, with occasional twitchings of the left extremities. After these symptoms took place, she occasionally carried her left hand to the side of the head. Has never rolled her head on the pillow. On the thirteenth, an elevation over the right parietal bone was discovered running longitudinally forward and backward; suggesting the idea of a local affection of the right side of the brain. The elevation was hard. The respiration, nearly natural, through the whole course of the disease.

Leave for dissection was not obtained.

who had been bled and purged for a supposed quinsy, drop away very suddenly on the eighth day, to the astonishment of his medical attendant. As this was one of the first cases of an endemic in that town, the physician, a respectable and skilful man, was probably unguarded in the diagnosis. Another child of a year old, about the same time, under the care of another physician, fell a victim to a similar error. The unexpected death of this child roused the attention of its parents to five others then sick in the same family, who all went safely through the disease under my daily inspection, by a vigorous prosecution of the common tonic and stimulant course. It was a fact that struck me forcibly at the time, that every child in the vicinity which had no professional attention, their parents supposing the disease to be a common cold with sore throat, suddenly grew worse and died about the eighth day, while of those who were early subjected to an invigorating course of remedies, with acrid gargles and external rubefacients, I should think not more than four or five in the hundred died. The same facts substantially were stated to me by medical men of the neighbouring towns; and I must acknowledge they served much to exalt my ideas of the profession to which I belonged. I have since seen repeated instances of neglected sporadic cases that terminated in the same unhappy manner.

Now, although I am sensible of the danger of general rules and sweeping assertions in our science, I venture to affirm, in accordance with what has already been stated, that in every *dangerous* case of *cynanche maligna* the pulse is soft throughout, while in the common quinsy, as soon as any febrile symptoms are manifest, the pulse will have a sensible hardness and increased frequency. As the former disease is so dangerous, and yet so much under the control of remedies, and as sporadic cases are every year occurring, the practitioner, when called to any case of sore throat associated with febrile symptoms, cannot be too critical in his examination of the pulse and fauces.

In some cases of *cynanche tonsillaris*, when emetics, cathartics, gargles and external applications have been faithfully administered, and about the third or fourth day the disease seems rapidly gaining ground, it is very pleasing to observe how utterly the storm is hushed by one bleeding. I have known patients as free from disease in twelve hours after such bleeding, as they were just previous to the attack; showing that though the previous measures could not quite subdue the disease, they must have co-operated with the abstraction of blood in its sudden extinction. In a case which occurred about five months

since, of a gentleman who had frequently undergone a tedious course of the quinsy, and which, owing to his not being bled during the inflammatory stage, had been followed by profuse and dangerous hemorrhages from the throat, the disease seemed at a stand after an emetic, cathartic, and one bleeding. These measures about a year before had suddenly arrested the disease, and the patient convalesced speedily without any hemorrhage. In the latter instance the remedies proved insufficient. The disorder increased from the fourth to the seventh day, notwithstanding the application of leeches, liniment of ammonia, inhalations, gargles, saline cathartics, &c. till his pulse became 110 and hard. The general heat had increased, with sense of suffocation about the throat, and great anxiety of countenance. In these circumstances I drew about 14 oz. of blood, which, to use his own language, '*lowered the topsail*,' for he was able very soon both to speak and swallow. From this time he recovered without any untoward symptom, and has since been exempt from its attack. I have introduced this case not because it was very singular or perplexing, but to say that in such difficulties there is incomparably more reliance to be placed on the pulse than on any, and I had almost said, than all other symptoms put together.

It would be wasting the time of an American reader to dwell upon the three stages of *croup*, upon the curable nature of the complaint during the forming stage, upon the almost entire change of remedies to be adopted when the local inflammation has affected the general system, and upon the practicability, even in the secondary stage, by a prompt and decisive exhibition of remedies, of arresting the progress of the disease. All this is clearly pointed out in our periodical works and public lectures, and perhaps no where more clearly than in the excellent lectures on the Diseases of Children, delivered in the Medical School at New-Haven. Dr Hosack has likewise very clearly pointed out the different stages of this disorder, and, like Dr Ives, ranks the pulse among the most prominent means of discriminating the one from the other. When we contrast the plan of remedies recommended by these gentlemen and other American writers with European authors, the difference appears wonderful. Even Dr Good; whose great work must long remain a prodigy among the achievements of human industry, has limited his therapeutical measures to leeches and calomel. It is true that 'five or six grains of calomel given every two or three hours to very young children till there is a discharge of green bilious matter,' is no trifling plan of medication. Dr Phy-

sick* of Philadelphia, many years ago, gave to a child three months old half a drachm of calomel in a day. But he did not trust to calomel alone. He bled the above-mentioned child three times the same day, and it recovered. If to the above remedies for the second stage we add emetics, liniments and epispastics, not forgetting the exhibition of emetics and acrid expectorants in the forming stage, we have the outline of a plan which has been instrumental in saving multitudes of children from the grave.†

In adverting to the *diseases of the thorax* I am at a loss which to select as most illustrative of the faithful indications of the pulse. Passing by hydrothorax, hydrops pericardii, and all the organic affections of the heart, which need only to be mentioned, I will make one remark upon the multiform diseases included under the name of *phthisis pulmonalis*. Not an instance has occurred to me in which the pulse of the patient at the time of application was as frequent as 110 in the minute during the apyrexia, that I succeeded in curing: and on the contrary, I have never to my recollection lost a patient in this complaint, whose pulse was steadily as slow as ninety. I am aware of the danger of absolute rules in therapeutics, and I would not be understood by any means to propose one in this instance; but having been early impressed with the importance of the pulse as a guide in clinical practice, and possibly relying more on it than many of my brethren, I feel no hesitation in applying this remark to my own practice. I would except from the above remark those cases of apparent phthisis which have been preceded by obstruction of the menses. I have known females in this condition recover after their pulse steadily ranged from 110 to 120 in the minute. I was greatly confirmed lately in the above opinion by casting my eye over the following passage from Dr Heberden:‡—‘What may be the nature and danger of a cough is pointed out more clearly by no symptom than the pulse. For a severe cough, if the pulse be slow, need not forbid the patient's confidently hoping for a recovery:

* Dr. Physick and Dr. Rush are supposed to have copied the practice of Dr. Kuhn, of Philadelphia, in the use of this article in croup.

† Many physicians are in the habit of recommending and using the warm bath in this affection; but, from what has fallen under my observation, I cannot but think there are solid grounds for the objection to this remedy made by Dr. Dewees in his work on the Diseases of Children.

‡ As I have no English copy at hand, I subjoin the Latin. ‘Quænam sit natura tussis et quid in ea periculi nullo alio indicio clarius significatur quam arteriarum pulsu. Nam gravis tussis, si illæ tarde moventur non impediet quo minus æger sit in bona spe: levis autem, cum pulsu concitatu, haud-quoquam vacabit periculo.’

but a light one, if the pulse be quick, is by no means free from danger.' He then describes the case of a youth of eighteen, who had been losing flesh for two years, with a cough, bloody expectoration, difficulty of breathing, vomiting, pains of the chest and night sweats: meantime the pulse was scarcely or not at all more excited than in health. This patient was restored to sound health in three months. Other such instances had fallen under his notice. I could here add the *details* of several cases (one within a few months) which from great emaciation, debility, night sweats, cough, and, in two or three, hæmoptoe, were considered hopeless by their friends; yet the sanguiferous system associating but little with the disease, my confident expectations were realized in their recovery.*

The application of the stethoscope and percussion to the diagnosis of lung affections has not till lately assumed a sufficiently definite form to be useful to country practitioners; and it appears to me still doubtful, from the desultory and irregular nature of country practice, whether the stethoscope will not be mostly confined to the hospital and the city.

My attention was early called to the state of the arterial system in the more acute disorders of the lungs, by the following case. A young lady of highly nervous but sanguine temperament was seized with an acute pain in the lower and left part of the chest, short suppressed cough effected with great pain, inability of expanding the chest in inspiration, and other symptoms indicative of inflammation of the lungs. This patient in the course of a few days was bled five times, with a sufficient number of blisters, and other means of subduing the supposed inflammation. At this time I saw her. Her cheeks still retained a circumscribed redness, while the rest of the face and the prolabia were remarkably pale and exanguious. The pulse was accelerated, but afforded feeble resistance to the finger. She informed me she experienced but little relief from the bleedings, and that she still had considerable pain in the side. I do not now recollect the state of the tongue and alimentary canal, but have no doubt the original complaint was nothing more than what Sir John Pringle denominates a flatulent pain of the side, or, in the more correct language of Marshall Hall, a simple case of *Mimosis Acuta*. This patient slowly recovered from a disorder, which, had the state of the pulse and first passages been accurately attended to, would have yielded to

* 'Although the pulse is not invariably rapid in phthisis, except in that from tubercles, yet it is nearly constantly so.' Johnson on Derangements of Liver, Internal Organs and Nervous System.

a blister, a few Dover's powders and carminative laxative pills.

The practitioner alluded to was then in the outset of his profession; and from the respectable stand he has since acquired, there is no doubt he would now form a more accurate diagnosis, were he restricted, like the Chinese physician mentioned by Barrow, simply to an examination of the pulse.

As I have already encroached beyond my original intention upon the patience of the reader, I shall notice but two or three diseases of the abdomen and pelvis.

In *Jaundice* arising from spasm or gall stones, 'the pulse is seldom over 100 in a minute, often not more frequent than when the patient is in health, and sometimes even slower than natural. The more exquisite the pain is, *provided the pulse is below 100 in a minute*, with the more confidence may we rely on this diagnostic symptom, inasmuch as such pain could only arise from the inflammation of a *membrane*, in which case the pulse would far exceed the number specified.'* 'Gall stones are denoted, among other symptoms, by there being little change of the pulse.'† 'When the pulse is examined during the exquisite pain attending the passing of gall stones, it is sometimes found to be accelerated in a trifling degree, but generally it is not more frequent than in health, and sometimes it is even slower.'‡ 'Jaundice occasioned by the pressure of inflamed viscera in the neighbourhood of the gall ducts is distinguished from that which arises from spasms or gall stones by the symptoms of inflammation having preceded, by the pain varying very little in degree, and by its not having come on suddenly. The pulse also in this case is always above 100 in a minute.' 'In acute inflammation of the liver the pulse is always above 100.'§ 'In chronic inflammation of the liver, as the disease advances, an increase of heat, quickness of pulse, and other symptoms of fever are observed, especially towards night.'||

'In two cases of hydatids in the liver which have come to my knowledge, there was a violent spasmodic pain near the pit of the stomach, frequent vomiting, and jaundice, with a pulse not accelerated.'¶ 'In spasm of the stomach the pulse is often little accelerated, sometimes feeble and irregular.'** 'Calculus in the ureter may be distinguished from the seat of pain being in the back, by the affection of the leg and thigh, by the

* Pemberton on the Abdominal Viscera.

† Hall on Diagnosis, Part II.

‡ Baillie. *Morb. Anat.*

§ Pemberton.

|| Sanders on the Liver.

¶ Baillie.

** Hall.

retraction and soreness of the testicles, and by the pulse remaining quiet.*

'In calculus of the kidney and ureter the tongue and pulse are little affected.'†

'In painful affections of the diaphragm, attended with pain of the most violent kind in the epigastrium extending to each side and to the back, the pulse is liable to be irregular or intermittent.'‡

Dr Ferriar, in calling the attention of physicians to a painful affection of the duodenum, resembling chronic hepatitis, among other symptoms says, 'the pulse likewise is soft, though very irregular.'§

The following is a part of Dr. Hall's celebrated parallel between inflammatory and spasmodic affections within the abdomen. 'In case of spasm the patient often lies on the abdomen, or he sits and leans forward, pressing the abdomen on the thighs or with the hands; he changes the position, and writhes and distorts the body continually. His manner is exceedingly querulous, impatient and irascible. He calls out from the pain without suppressing the voice, &c. The pulse is little affected, nor is the general surface, except when the violence of pain or of muscular contraction induces copious perspiration. The pain returns in paroxysms,' &c.

'In acute inflammation, any muscular effort or change of position induces an aggravation of the expression of pain in the countenance: 'the weight of the hands and of the bed-clothes is, in severe cases, carefully removed from the abdomen. The manner of the patient is mild, plaintive and amiable. The respiration is performed by the chest alone. The pain is attended with stinging and tenderness under pressure. The pulse is frequent. There are no intervals of freedom from pain.'

To such readers as are aware what numbers annually die of inflammation of the intestines, under the name of bilious colic, the length of the last quotation will need no apology. It is earnestly to be wished that, instead of taking the violent pain and costiveness common to both these complaints as evidence enough of bilious colic and authority enough for the immediate application of heating, drastic cathartics to the inner membrane of the already inflamed bowels, practitioners would pause, and, after an anxious examination of the pulse with all the accompanying symptoms as detailed by the last mentioned excellent writer, institute a plan of remedies in accordance with reason and sound pathology.

The investigation of the *idiopathic fevers* of our climate would

* Pemberton.

† Hall.

‡ Ibid.

§ Medical Histories, &c. Vol. II.

afford an ample field in confirmation of the above views of our subject. But I dare not enter it. If from the remarks already made any of my brethren should be incited to renewed attention to the interesting subject of symptomatology, and particularly to the pulse, and if some of our writers for periodical works would observe a little more caution in repeating the very smooth-sounding expression of Celsus, *res fallacissima*, without its accompanying qualifications, my object would be fully compassed.

I will only add in conclusion :—

1st. That in this article I have endeavoured to confine my remarks to those diseases which are of more frequent occurrence, and which, through the prevailing fondness for publishing rare cases, are perhaps too much excluded from our public journals.

2d. I have purposely postponed making any allusion to the effects of irritation on the pulse to this place, and a few words will comprise all I have to offer on that subject. As the irritation consequent upon wounds, fractures, burns, &c. which Sir Astley Cooper styles 'the foundation of surgical science,' does not come within the scope of this article, I pass it by without remark.

In disorders of infants the arterial system is seldom idiopathically affected, its increased action being generally owing to irritation of worms, dentition, indigestible articles of food, &c. It is not necessary to decide how the nerves of the mucous membranes and skin are so associated with the heart in infancy as to convey *immediate* intelligence of slight irritation upon their surface. In the adult system, in which the animal and organic functions proceed in a more established order, the arterial system is far less under the influence of irritation than in infancy. Indeed I have noticed that the term irritation is not in so frequent use among those who are conversant with the splendid works of the present day in the departments of pathology and physiology, as among those who have drawn their opinions exclusively from more ancient writers. But whatever term be used, there can be no doubt that such a condition of the system often exists : and those who have bent their powers to the investigation of the varying states of the pulse, with a full belief that, when rightly interpreted, its indications are most to be trusted :—in short who have acquired such nice discrimination of touch as to distinguish the fulness and resistance in acute and subacute inflammation from the contracted and yielding beat of irritation, can justly appreciate the importance of this guide in the intricacies of medical practice.

Ellington, Conn. July 1826.

Case of Organic Disease of the Brain.

By JOHN JEFFRIES, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

C. B. when at school, at the age of fifteen, in the winter of 1821, was first annoyed with flushings of the face, and a degree of heat about the head. Her situation in the school was under the funnel of a stove, and on a cold floor. She was severely afflicted with chilblains during this winter; her appetite had been good, and indulged. Her bowels were exceedingly costive at this time, and continued so until the period of her application for medical advice, which was eighteen months after. She often passed ten days without a dejection.

In 1822, there was added a sense of weight on the top of the head, and of fulness of the whole head, and distress about the scrobiculus cordis. In July, 1823, she applied for medical relief. Her situation at this time had become very distressing;—her face was highly flushed, having all the time the appearance of violent exercise; her hands and feet were cold and smooth, and had a bluish appearance, with an unpleasant dampness constantly upon them, having more the appearance of marble than animated matter. Catamenia had occurred, but irregularly. She complained of severe pain in the head; it seemed to her, as she expressed it, as if the forehead protruded about two inches. To convey an idea of the distress of her head, she tied a handkerchief round her mother's neck, and keeping it as long as it could be borne, she said that was like her constant suffering. She could not readily designate notes of music, or study without great effort. There was also incessant uneasiness about the pit of the stomach, and a stiffness and pain in the back of the neck. The treatment resorted to at this time was the use of cathartic medicines, blisters, antimonial ointment on a crucial incision of the scalp, and once cupping. By these means she was somewhat relieved in August. In the course of the following month, two hundred and sixty leeches were applied with some additional relief for a time. Every second day the pain was more severe, accompanied with a febrile paroxysm commencing with chills followed by great heat and redness of the face. In October, she took Fowler's arsenical solution. In November, she became worse; her tongue was now for the first time a little coated; she was feverish, and excessively thirsty; the appetite was not so good after taking the solution. The distress at the stomach

had very much increased, as also the pain, fulness and pressure of the head. The pulse was from 110 to 120, but not full. She was irritable and nervous; but so far from evincing any mental derangement, her mind was engaged in domestic concerns with the most minute attention, although at times in deep distress. At one period she found no relief but from iced water unremittingly applied to the head. In the latter part of this month, she complained of increased uneasiness in the eyes; it seemed to her as if her eye-lids were closed and swollen, and as if there was something in the left ear. She had also more pain in the back of the neck and shoulders; there was a difficulty in turning the eyes, or moving the head. The hands, hitherto cold, became at times hot and dry; she was restless, and suffered from nausea; the dejections were disordered. She sometimes spoke of a sense of rolling in the head. An emetic at this time afforded considerable temporary relief. From this period, the derangement of the stomach increased more in proportion than other symptoms; the matter ejected by vomiting was always a viscous, transparent fluid. In the spring of 1824, she became more comfortable, and continued so until the fall of the year, when every symptom recurred in an aggravated form, but most so in the stomach, where it terminated in a severe inflammation, from which she with difficulty recovered; during this period, she was supported mostly by nutritive enemata, the stomach seldom retaining the smallest portion of food. Through the summer of 1825, she was again comparatively comfortable, but fell off rapidly as autumn advanced. Her situation in October, at which time I first saw her, was much as has been described, with increased severity; she sat leaning her head on her hand; her face was much flushed, and turgid; when addressed, she answered in an unnaturally excited manner; her remarks were very pointed, and her observation precise. Her tongue was almost clean; the pulse 120. Her hands and feet were cold, with no appearance of veins; there was constantly exuding from her feet a cold sweat, so copious as often to wet through a pillow, or run down the foot-board of the bed. The appetite had been tolerably good, but had fallen off since the cool weather. Catamenia had occurred occasionally during the summer. She had enjoyed no rest for several weeks without a powerful opiate. She complained that food distressed her excessively, and that after taking it her head throbbed and pained her more severely. The alvine discharges were not free, and consisted of indigested food and mucus. She made use, at this period, of the general vapour bath, and of frequent vapour pediluvium, by which the sweat-

ing of the feet was almost wholly relieved, the veins on the hands and feet began to fill, and the pain of the head was, as she said, for the first time relieved; and she was enabled to rest without opium. The uneasiness at the scrobiculus cordis did not abate; and in January, 1826, there was severe inflammation of the stomach, during which she was again supported by broth clysters. Her suffering had now much increased, vomiting was very frequent, the pain of the stomach was constant, and thirst excessive; there was no dejection but from an enema or medicine; she was much reduced in strength, but not so much in flesh. She was unexpectedly improving a little from this low state on the first of February; her febrile symptoms had abated; the tongue, which had been covered with a dark dry coat, cleaned rapidly; she had not complained of her head, unless when particularly questioned, for several weeks. With this prospect of some temporary amendment, she was suddenly seized with epilepsy, which terminated her existence in three days.

Her mind, during the whole of this distressing confinement, so far from being debilitated, or even alienated, was remarkably acute and improving. During the period of my observation, I think I never saw such rapid acquirement, or marks of more interesting intelligence. An elegant poetic address to sickness was a proof that this continued until a very short time before her death. Her hair had grown rapidly and richly during her sickness, particularly in the course of the last winter.

Examination after Death.

The vessels of the integuments of the cranium were found much filled; the bones thin, soft and highly injected. About an ounce and a half of water escaped on raising the cranium. The dura mater was thick and firm, with a beautiful crimson appearance from being crowded with blood. The tunica arachnoides was exceedingly vascular throughout, and contained patches of hard red and white spots, particularly on the anterior and posterior portion. The pia mater was also very vascular, but most so in the ventricles. The distention of the veins was very remarkable; the external and internal jugulars were crowded almost to bursting. This venous congestion was general throughout the head. The thalami nervorum opticorum were hard, irregular and prominent, the right was almost conical; the pineal gland very firm; the pituitary also quite hard, and covered with the same appearance

of red and white specks observed on the arachnoides. There was some water in the ventricles, and at the base of the brain. The medulla spinalis was very hard, and remarkably contracted, not filling half the occipital foramen and upper portion of the vertebral canal. This gave the nerves arising from this part a singular appearance, drawn from their apertures, and kept constantly extended. The whole brain was firm, and exceedingly vascular.

The abdominal integuments, and the omentum, were filled with fat. The intestines were all very much contracted. The colon was small, and mis-placed, forming a complete convolution at the right side of the arch. The stomach exhibited marks of considerable chronic inflammation, and was so soft as to be easily torn in removing it. The liver was quite pale. The tendinous portion of the diaphragm was most beautifully injected, so as to appear almost of a scarlet red.

The muscles of the chest and abdomen were very delicate and soft.

The contents of the thorax appeared healthy, except the veins, which had the same appearance of congestion here which was observed in the head. The cavæ and right auricle of the heart were very much crowded.

There was no period of her sickness at which the diagnostic symptoms were so clearly defined as to mark distinctly the seat of the disease; there was almost the whole time an evident affection of the head, but whether original or sympathetic it was difficult to decide. There was also occasionally inflammation of the stomach, but whether this was the cause or consequence of constitutional derangement was not easy to pronounce. The examination after death affords a distinct view of the nature and extent of the disease, and a review of the history of the case illustrates its cause and progress. Functional derangement of the bowels, at a period critical to the female constitution, was the first complaint. The obstinate constipation aided by cold to the feet, and an undue degree of heat to the head, induced unequal circulation, and a determination of blood to the part. The consequence of this, early in the disease, was organic derangement of the brain,—from the commencement of which, could it have been discovered, the prognosis would have been unfavourable. The precise time of the beginning of this it is not, perhaps, easy to designate; but that it existed, in some measure, at the time of her first application for medical assistance, appears from the difficulty of vision, the consequence of the diseased thalami, and the peculiar pain of the back part of the neck, arising from the contraction of the spinal marrow and the extension of the

nerves. It may be remarked, in conclusion, that the case is interesting, as exhibiting the great importance of deranged alvine functions as the origin of constitutional disease, and the inefficacy of removing the cause after it has produced organic derangement.

The existence of the mental powers, and still more their remarkable development, during the progress of diseased brain, is also worthy of notice. The importance of the subsequent examination, elucidating the cause and effect of the complaint, is also apparent.

Case of Epilepsy.

By USHER PARSONS, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

IN the early part of 1823, I was called to Michael Hogan, whom I found labouring under all the symptoms of common epilepsy. He was about 25 years of age, by occupation a confectioner, had always enjoyed good health, and was rather inclined to plethora. In a few days I was called again; and after this learned from him, that in these, and in some other attacks, he had invariably felt a sensation of something creeping along the left arm, from the fingers towards the head, and that this was the only premonitory symptom he could recollect. The fits recurred with increased frequency during the spring and summer; and in the month of August, and part of September, hardly a day passed in which he was not threatened with one or more returns of them,—though he had become able, in a great many instances, to stay their progress by compressing the nerves of the arm. I had, in several instances, on board ships of war, where epilepsy is frequent, been able to stop the progress of the *aura epileptica*, in its passage from the hands and feet to the head, by compressing the limb with a cord passed round it, and a stick introduced under the cord, by which the patient could tighten it in the manner of a field tourniquet; and where the paroxysms were frequent, the patient wore one of these upon the arm in constant readiness, with which he could always check the aura, by prompt attention to the cord. This was applied in the present case, and was the means of preventing his falling into epilepsy in more than fifty instances; but the tendency to the fits had become so constant, and the compression been so long continued, that the hand be-

came very much swollen and benumbed. His mind and muscular strength were also greatly impaired, probably not so much from the disease as from the use of narcotics, particularly stramonium and cicuta, which had been taken in such quantity as to produce dilatation of the pupils. In this alarming state of the case, when he had made trial of all the common remedies in repute, had been blistered, and worn issues about the head and neck, and had submitted to the application of moxa to the nape of the neck, and all apparently with little or no advantage, (excepting that there was a slight abatement of the disease when first put under the influence of narcotics,) I recollect some suggestions of Dr Mansfield of England on the nature and treatment of epilepsy; and on referring to a manuscript, where I had some years since made an abstract of his doctrines, found his opinions to be these, 'That the moving power of the muscles of the body is a subtle fluid analogous to the electric or galvanic fluid, and which may be called animal electric matter, and which has its seat in the brain; that this fluid may be accumulated in quantity too great, and disproportioned to the existing capacity of the brain; that then, there must follow explosions, in the form of epilepsy.' After some plausible reasoning upon the subject, he proposes to draw off the excessive quantity of electric matter from the brain by means of a galvanic conductor; and to this end directs 'the removal of a portion of the cuticle of the size of a sixpence, by a small blister, from the back of the neck, as close to the root of the hair as possible, and a similar portion from the inside of the knee. To the sore on the neck, a plate of silver, varying according to the age of the patient, from the size of a sixpence to that of half a crown, is to be applied, having affixed to its back part a handle or shank, and to its lower edge, and parallel with the shank, a small staple, to which the conducting wire is to be fastened; this wire to descend the back till it reaches a belt of chamois leather buttoned round the waist, and to follow the course of the belt to which it is to be attached, till it arrives opposite the groin on the side where it is to be used; it is then to be passed down the inside of the thigh, and to be fastened to the zinc plate in the same manner as to the silver one.' On applying the apparatus, he directs that 'a small bit of sponge, moistened in water, and corresponding to the denuded place in the neck, be first placed directly upon it; over this a large piece of the same size as the metallic plate, also moistened, is to be laid,—and next to this the plate itself, which is to be secured in its situation by a strip of adhesive plaister passed through the shank on its back part,

another above, and another below it. The wire down the back should be of such length as to admit of free-motion of the head without moving the plate. A zinc plate is to be fastened to the wound at the knee, in the same manner; but in place of the second layer of sponge, a bit of muscle, answering in size to the zinc plate, is to be interposed. This apparatus will continue in gentle action for 12 or 24 hours. The sores now require cleansing and dressing, and the plates polishing. The best conductor is three or four fine copper wires; a chain will not do.'

The apparatus was applied, in the present case, according to the foregoing directions, and all other remedies were suspended; and not a single paroxysm of epilepsy has occurred from the day of the application to the present time, being more than two years. He discontinued the apparatus after it had been worn six months.

Dr M. records a great number of cases successfully treated by this remedy. Of his theory, I offer no opinion; but in the efficacy of the remedy I feel the greatest confidence, in cases like the foregoing, and recommend it to the profession for further trial.

Providence, June 12th, 1826.

Miscellaneous Cases.

By WALTER CHANNING, JR. M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

SPINA BIFIDA.

SPIN*A* *bifida*, *divided spine*, *spinola*, and *hydrorachitis*, for it has all these names, is a congenital mal-formation of the spine. We have descriptions, with drawings, of cases of this disease, in the writings of Tulpius, Ruyssch, and Morgagni, among the older medical writers; and in those of Darwin, of Abernethy, Crowther, in his work on White Swelling, and Okes, in his account of spina bifida, among the latter. The disease has always been fatal, under whatever treatment, according to the observation of all these authors. Mr Abernethy has proposed a method of treatment, puncture, which he has once tried, but without success. He considered his case an unfavourable one for his method; and if it were so, his treatment remains for further trial. Mr Okes considers Mr A.'s mode to be so objectionable, that he dissuades from its further use.

Spina bifida, in a few words, consists in a deficiency of bone, greater or less, in the spinal column. Sometimes one or more of the spinous processes are wanting, with or without a deficiency in the lateral processes. Sometimes a small space only exists between two vertebræ. A tumour is the consequence of both of these mal-formations. In the former the base is broad, and the tumour corresponds with it; in the latter the tumour hangs by a small pedicle from the back. The lower part of the spine is most frequently affected. Sometimes the disease depends on a defective formation of the sacrum. The tumour is either formed externally by the common integuments throughout its surface, which is rare; or by these and a translucent membrane occupying a portion of the centre, which is most common; or by this translucent membrane entirely. This membrane is the dura matral covering of the medulla spinalis. The contents of the tumour are a fluid exactly resembling pure water in its external characters, and the spinal marrow. This last is much divided into fibrils, more or less delicate, which traverse the tumour in different directions, and some of which are inserted into various parts of the sac.

Three cases of spina bifida have come under my observation. The first was fatal within a week after delivery, the tumour having burst, and inflammation of the whole sac having taken place. It may be remarked, that this was the second case which had occurred in the children of the same individual. They were both males. Two female children were previously born, and one subsequently, perfectly well formed, and which have been reared. The second case was treated by puncture, as recommended by Mr Abernethy. The puncture was made by a narrow flat instrument, and the fluid fully evacuated. The wound healed readily, and new accumulation of fluid occurred. The water was again and again discharged, but inflammation at length took place, and death soon followed.

CASE III. This child was born June 3d, 1826. He was a fine, large, vigorous infant. The mother suffered much hemorrhage before the placenta came away, was very faint, and required much and constant attention. The nurse was directed to wash and dress the child, while I remained in immediate attendance on the patient. As I was leaving the chamber, I was requested to examine the child, as a very unusual appearance was noticed on the lower part of the back. Upon examination, a tumour, of a dark red hue over most of its surface, was discerned in the place indicated. Its character was too unequivocal to leave any doubt as to its nature; it was a case of spina bifida. Upon a more careful inspection, it was found

that the common integuments were deficient over nearly a third part of the surface. Their place was supplied by a delicate translucent membrane, of a light pearl colour, and of an irregular quadrangular shape. The tumour was very much distended by its contents; was nearly two inches, say an inch and two-thirds in diameter, and nearly round. It much resembled, in colour and shape, a ripe nectarine. It was pronounced a *mark* by the nurse, and it was soon discovered that the mother had *longed* for an article of food which resembled the tumour, at least in colour. The motions of the lower extremities were perfect, and the whole appearance of the infant indicated a perfectly healthful development.

An important and not easy question arose. What should be done in this case? Should the tumour be left to break, and the child to die of the supervening inflammation,—or should the fluid contained in it be discharged by puncture? I preferred the latter alternative; my reasons were, the health of the child, the free motions of its limbs, and the size and appearance of the head, which were perfectly natural. I had the authority of Mr Abernethy, and could have had the better of Mr now Sir Astley Cooper. I say better, because in one case at least this mode of treatment, under his use of it, had been successful. One case occurred to me as supporting the operation, which, though not spina bifida, has with this some points of resemblance. I refer to the case of hydrocephalus externus successfully treated by puncture, by Dr Vose, of Liverpool. In this case the water was contained within the same membrane as it is in spina bifida; and, though a natural formation, a somewhat similar deficiency of bone existed in that case as in the one in question.

June 4th. I punctured the tumour this day for the first time, and evacuated the fluid entirely. The instrument was a large surgeon's needle;—this was selected because it was believed the opening made by it would heal more readily than one made by a large round needle. The fluid was colourless, exactly resembling water; the quantity could not be ascertained, as it escaped by a small stream down the side. The puncture was made in that portion of the tumour which corresponded to the common integument of the back; it was made very near the base, and in the most depending part. The skin fell into large wrinkles or folds as the fluid passed off, and a deep excavation existed in the centre, or where the strictly membranous portion of the surface was situated. No disposition to contract was to be observed in any part of the integuments. A simple dressing was applied, and a bandage making moderate pressure retained it in its place. The child seemed to

suffer nothing from the puncture; he did not shrink at all from the needle, or utter the least cry.

5th. The tumour was found very tense, and of the same deep red colour as on the preceding day before puncture. The fluid was again evacuated. The redness entirely disappeared after the water was drawn off, and the same thing had been noticed the day before. Dressings the same.

6th. Tumour fully distended. The dura matral portion seemed so exceedingly tense, that I looked for it to give way, by the increased tension which occurred when the child cried. It almost invariably cried upon turning it on the side or abdomen, in order to come at the tumour, but immediately after became easy, and scarcely in any instance were its cries renewed by the needle. Crying always increased the tension; and when the water was nearly removed, if crying took place, the tumour almost invariably became tense, and a greater quantity escaped. The wound always healed, or closed, in an hour or two after puncture.

7th. The nurse informed me that the sac became filled in from two to three hours after the water had been let off. She had also observed that the feces and urine were passing almost constantly, the latter in drops, and she was satisfied the infant had no power to retain them. After puncturing, a graduated compress was nicely adjusted to the excavation formerly mentioned, and to the whole surface of the tumour, and a bandage applied to retain it accurately in its place.

8th. Tumour not diminished. A portion of the compress was found sticking so closely to the thinnest part of the sac, that it was thought best not to be disturbed, lest laceration should be produced. Tumour punctured.

9th, 10th, 11th. The same. The portion of compress which had adhered was removed on 11th. It was found that slight inflammation had been produced by it, and that a slightly suppurating and granulating surface was the consequence.

The tumour continued to fill and to be punctured daily, for nine days; it was then left full for two days, and then again punctured. The surface was healed entirely, and the thin portion of the sac which had been inflamed by pressure was found much firmer and apparently thicker than before.

It is unnecessary to continue the record of daily occurrences, as nothing very important was noticed till about the twentieth, when I found the tumour nearly flat, not at all inflamed, and the child very comfortable. It appeared that a small opening, too minute to be seen, had taken place, through which the fluid was slowly but constantly escaping. This was not an

opening left by puncture; in every instance this had closed a very short time after being made. The fluid oozed from near the centre of the tumour. This state of things lasted two days, and the opening then closed, and the sac was found fully distended every day afterwards till death. The child failed in the last three or four days of life; it vomited greenish yellow matter, and refused food. It now fell off rapidly; and though it again took food, its flesh rapidly disappeared. It died about six weeks old. The only circumstance worth note which has been omitted is, that at times it manifested great suffering by long continued and severe fits of crying or screaming;—of these, three or four occurred. In the last ten days, it was at times extremely cold on the surface, and frequently covered with sweat.

I examined the spine the morning after death. Externally, the body shewed great emaciation. The head was very striking; the sutures and fontanelles were shrunken deeply, the latter particularly, as if the cranium had been emptied of its contents. The tumour of the spine was quite flat, and wrinkled, as after being punctured. It had not been opened for three or four days. An incision was made in the length of the spine, near the base of the tumour on one side, and continued down upon the sacrum;—a fluid, similar to what has been noticed, was discharged freely on the incision. Upon looking into the sac, the medulla spinalis was found issuing from an opening in the spinal column,—but was observed to terminate abruptly, or not to enter the canal of the sacrum. In fact, there was no canal in this bone, a slight groove only being perceptible a short distance on it, continuous with the imperfect spinal canal. The integuments now being raised, an incision was carried on the other side of the tumour, joining the first below, and extending near the first one above. The flap thus formed being raised, it was found that the spinal marrow, in place of continuing down, had turned abruptly backwards, and was firmly attached to that portion of the integuments of the sac, which has been designated as the dura matral coat of the medulla spinalis. Very delicate fibres of nerves traversed the inside of the tumour in various directions, and were inserted into it in different spots. Water was observed to ooze freely from the opening in the spine through which the medulla emerged into the tumour. The medulla was much less in diameter than the spinal canal, and very hard or firm. This arrangement of the cord may account for the want of sensibility in the sac. The child never cried during the puncture, and this it would have done had not the part been

insensible. The places chosen were in the thickest part of the integuments; but it was found, on examination, that the needle had always been introduced *below* where the nerves existed.

Mr Cooper's paper, before referred to, is in the second volume of the *Medico-Chirurgical Transactions*. It contains four cases.* In the second, puncture by needle was employed at first, and afterwards treated by pressure with success. This child did well. In the third, the skin over the tumour was ulcerated at birth. The treatment was at first by puncture; much disease occurred, and was fatal. The fourth was at first treated by the needle, and afterward by pressure. The tumour is described to be large. At a year and a half old, the child is represented to be very vigorous.

Three Cases of Preternatural Labour.

CASE OF ARM PRESENTATION.

THIS is the most difficult of the preternatural births. The difficulty belongs essentially to the presentation; and this may be readily understood, by referring to the relations the arm has with the trunk and the head. Various circumstances may add to the inherent difficulties of the case. Among these may be enumerated, its being a first case; early rupture of the membranes, and discharge of the liquor amnii; partially dilated, or an undilatable state of the *os uteri*; a similar state of the external organs; violent uterine action, with great disposition in this organ to be affected by external or internal pressure; the arm protruded far from the external organs; irritable habit of the patient. Now under these circumstances, or many of them, great difficulty will be encountered in the management of the case. The favourable circumstances are the opposite to those just mentioned. Among them may be enumerated, its not being a first child; the membranes being entire when the case is discovered; a yielding mouth of the womb; a healthy state of the uterus, and connected organs; early attendance on the case; the arm being but partially in the vagina. Many of these latter circumstances concurred in the following case.

Mrs ——, mother of three children, was taken, in the

* The tumour in the first was small, the size of a large walnut. It was treated by pressure, principally made by a piece of plaster of Paris, slightly hollowed, and the hollow filled with lint. The disease continues, and is increased in size, being as big as half of a small orange;—a truss, however, keeps it in its place, and prevents accidents. The child is between four and five years old, and is very vigorous and healthy.

morning of — June, 1826, with labour pains. Her physician saw her in the afternoon. Pains were regular; the waters had passed off, but the mouth of the womb was only slightly dilated, and the presenting part not made out;—a tumour of a remarkable character was felt in the vagina, evidently attached to the symphysis pubis, and, during the pains, was protruded somewhat beyond the labia. It was distended with fluid. The patient stated that this tumour appeared after a former labour, and had troubled her more or less since. The physician now left the house, with directions to be called when the pains became urgent. He was called in the evening, between eight and nine, and, upon examination, discovered the hand and forearm in the vagina, the fingers being just within the labia. I was requested to see this patient, in consultation with the attending physician. I found the presentation as described. The humerus was felt extended across the pelvis just at the brim, and the arm hanging in the vagina. The tumour above mentioned was very easily felt; during a pain, it was forcibly protruded from the vagina, and became very tense,—in the interval it receded, became flaccid, and the fluid which it contained was very easily made out by a distinct fluctuation. The question of treatment was soon settled;—it was determined that the child should be turned, as the surest means of its safety, and of the mother's welfare. The circumstances favourable to the operation were, the regularity of the pains, a capacious pelvis, the situation of the hand and arm, and the dilatable state of the soft parts. The unfavourable, if such they may be called, were, the entire evacuation of the liquor amnii,—the strength of the patient's pains, increased as they were by her voluntary efforts, and which no advice could prevent,—the large tumour before described as occupying the vagina,—and the situation of the humerus across the pelvis.

Before the operation, the catheter was introduced; this was done with much difficulty; urine at length passed through it; the tumour was not sensibly diminished by it; pressure was made on the tumour, and the urine was observed to flow more freely; it was not, however, greatly lessened in size. It was now examined as to its external characters. It was found to be of a whitish red colour, resembling the urinary bladder exactly, which it unquestionably was, but wanting the appearance of the vaginal covering which this organ has in its recent prolapsus. This was owing to its having been long prolapsed; for it is well known that a great change takes place in the colour and arrangement of the vagina, or its lining membrane,

when protruded from its natural situation, by a prolapsus of any of the viscera of the pelvis.

The first obstacle to carrying the hand into the womb was the humerus. The shoulder rested on one side of the pelvis, the elbow on the other, in a direction somewhat diagonal of the cavity. The os uteri was dilatable, but was not much more dilated than was sufficient for the upper arm to pass through it. Much delay was experienced in the dilatation of this part, in the progress of the hand. The liquor amnii having been long and entirely drained off, the uterus was found in close contact with the foetus. During the state of relaxation which occurs in the intervals of pains, the hand could advance; but this effort, (though made with great care,) in the beginning of the process, was for some time followed by powerful contraction, forcibly compressing the hand against the foetus, and sometimes nearly expelling it from the cavity. At length the abdomen of the foetus was gained, and the cord felt to be pulsating strongly. Next one of the knees was reached, the leg being bent strongly on the thigh, the knee looking to the anterior face of the womb. The fore finger first, and then the second, were next passed round the ham, and a firm hold thus obtained of the limb. During a complete interval of the pains, an effort was made to bring the limb down, and it at once began to descend. The effort was continued, with proper intermissions; and at length the limb was delivered. The presenting arm receded but partially. This was at the beginning of the operation. It was observed afterwards to protrude still lower, as the leg was made to advance,—and this notwithstanding all the attempts that were made to carry it up, both while bringing the leg down, and in the intervals of extracting. The whole breech at length came down, and the other lower extremity dropped out. The body being born to the cord, a loop of this was drawn down, and the pulsation was ascertained to be vigorous. The arm which originally presented came along with the trunk, and the other was brought down with ease; the head soon followed, and I was much gratified to find the child breathing. The respiration was very languid, and it occasionally ceased to breathe. The ordinary means were, however, very diligently employed; and the child, after nearly an hour's exertion, was breathing perfectly well. The tumour before alluded to continued to protrude further and further, during the whole of the operation; it entirely receded after delivery. The patient has done perfectly well since her confinement. In the whole management of this case, I received very important assistance from the attending physician, Dr W. Lewis.

A subsequent examination of this patient has been made, about a fortnight since labour. The labia were found widely separated by the prolapsed bladder. This organ fills the vagina, and is always, to some extent, external to it, in the erect position. A catheter was introduced, its point following the direction of the bladder, and near half a pint of urine was drawn off. The tumour immediately became flaccid, and receded into the vagina. The os uteri was felt high up, and turned towards the sacrum. Coloured mucus is constantly effused from the vagina. The woman is in good health, and seems very little incommoded by her disease.

CASE OF FOOT PRESENTATION.

Within three weeks of the case just briefly narrated, two other instances of preternatural presentation have come under my observation. In the first of these, a foot presented. Labour was here premature;—the eighth month of gestation was nearly completed. The patient had always been an invalid,—and, for the preceding seven months, had scarcely left her bed. The lower extremities were œdematosus to a great degree. The labour was accomplished with great difficulty, considering the smallness of the fœtus. The child was still born; and, from the state of the cuticle, it was evident it had been dead some time before labour occurred. The labour lasted about eight hours. I saw this patient accidentally, the attending physician being absent. She was ill after labour, and I continued to see her for a few days. The result of the case I have not learned.

CASE OF PRESENTATION OF THE RIGHT HIP.

The next case occurred at the full time. The patient was healthy, and this was her first labour. The right hip presented. I was called to this case in the country, from the belief that some assistance from instruments might be useful. On examination, the right hip was felt in the vagina, about midway between the brim and outlet of the pelvis. The membranes had broken early in the labour, and the waters had gradually drained off. The anterior portion, or lip, of the os uteri, protruded far below the presenting part;—it was elongated, very thick, and was nearly on a level with the superior commissure of the external labia. The sufferings of the patient were extreme; I have rarely, if ever, heard so violent expressions of pain as were uttered by this patient. The os uteri,

laterally, and particularly at that part which looks to the sacrum, was well dilated. The spine of the foetus was towards the anterior face of the womb, or towards the symphysis pubis. My first attempts were directed to the protruded portion of the os uteri. In the intervals of pains, this was carefully pressed upwards. It was dilatable,—no pain was experienced from the pressure. It could not, for some time, be retained in the situation to which I could carry it with tolerable ease, every pain bringing it down again;—this, at last occurred in a less and less degree, until it was fairly slipped beyond the presenting part. The hip now advanced slowly, but steadily, with the pains,—and at length it and the breech were protruded. The cord was found pulsating when it came in reach of the finger, and the trunk and upper extremities were protruded favourably. The pains grew less strong after this, and at length almost ceased. The pulsation grew very feeble in the cord, and attempts were made to deliver the head. The chin was depressed, and the air was freely admitted to the mouth. Respiration, however, did not take place. Pulsation had entirely ceased when the head was delivered, and this last was effected as soon as circumstances allowed. Artificial respiration, with the other means of animation, were at once employed. The circulation was fairly restored. The heart beat regularly and strongly. Pulsation in the cord was equally distinct. The circulation continued perfect, under the use of artificial respiration, full half an hour. Frictions, warm applications to the surface, cold water dashed on the surface, particularly the chest, stimulating substances to the nose and fauces, and artificial breathing, were perseveringly used, but without the desired effect. The circulation again failed, and at length ceased entirely. The difficulties in this case were, beside the mal-presentation, a firm and unyielding state of the external organs,—the protrusion of the anterior portion of the mouth of the womb,—its being a first and a large child. I have rarely known the perineum yield so slowly, where the pains were so urgent, and the lubrication of the vagina so abundant, as was the case in this patient. After the removal of the protruded portion of the os uteri, nothing was required till the birth of the body, but support to the perineum. The distension of this part was excessive, and laceration strongly apprehended. The attending physician, Dr Folsom, had the management of the body of the foetus at this time, while I gave such support to the perineum as circumstances required.

Brief Notices of three Cases of Erysipelatous Inflammation occurring in the Course of other Diseases.

THESE cases were fatal. The patients were in a most unfavourable situation from previous disease, and there was almost no expectation of recovery from the moment of attack of erysipelas. Erysipelatous inflammation had occurred in the house in which they were ill, in a patient who had suffered a very severe, and almost universal contusion, complicated with compound fracture of the femur, and who at length died. It occurred in other patients with surgical diseases, or on whom operations had been performed, and though very well marked, was in none of them fatal. These patients were comparatively well to the time of the attack, presenting, in this circumstance, a very marked difference from those whose cases will now be briefly described.

CASE I.

J. H. aged 41. 2d June, 1826. Has been ill twenty days, with fever, accompanied with diarrhoea. He got better in course of ten days; but about that time found his left leg to be somewhat stiff, and swollen. Swelling was first noticed about ham and groin, with much soreness and pain, particularly on pressure. Swelling soon extended over the whole limb. Limb described to have been white and shining, not unlike *phlegmatia alba dolens*. I first saw him about twenty days from the attack, and six after swelling had occurred. The thigh was less swollen than it had been, though much larger than natural. The greatest fulness existed between the knee and toes. I found him with the following symptoms:—Leg as described; much emaciation; face, particularly lips, pale; tongue without coat, but rough and red; pulse 96, and hard; urine scanty, and high coloured; diarrhoea, but no tenderness or swelling of abdomen; no pain in any part; no cough or difficulty in the chest.

Under a treatment mildly alterative and tonic, he rapidly grew better. The diarrhoea abated, the limb became of the natural size, his pulse 72, and he could walk about freely. Emaciation, however, continued, and was very great, when in other respects he promised to do perfectly well. I considered him decidedly convalescent, and should soon have regarded him as no longer requiring medical care.

June 20th. The record of his state on 19th is as follows:—

The day was cold for the season, and stormy. Patient walked about freely, under cover, but much exposed to the damp, cold air. Awoke, towards morning of 20th, with severe pain in head and neck, with stiffness of the latter so severe, as to render it impossible for him to move without great suffering. Pulse 96; skin hot, but not dry; tongue very dry, and coated. He says a severe chill in the night preceded these symptoms. He got powder of colchicum root, with sub murias hydrargyri once in eight hours. Sinapisms to feet in evening.

21st. Bowels well evacuated by medicine, and rest procur-ed by Tr. opii. Pulse this morning 84, less hard; skin warm; some delirium at night. The mind is now more clear; coun-tenance dejected; eyes much sunken; nose swollen,—darkish red,—swelling extends to the cheeks; passage of air through nose obstructed, breathes by mouth; tongue dry, parched; neck swollen, tender; limbs sore; slight mercurial foetor. Take powder twice a day.

22d. Tranquil; pulse 72, not easily compressed; mercurial foetor increased; tongue cleaner; cheeks more swollen. Mer-cury to be omitted.

23d. Pulse 72; four dejections; slept badly; restless; swell-ing of nose diminished; cheeks as before; tongue heavily coat-ed, dry; great thirst. Ammon. acetat. liq.; was directed to take acetum opii at bed time, if watchful.

24th. Pulse 120; patient makes no complaint; swelling of face less, it subsided somewhat in night; vesication on right cheek; eye-lids swollen; great prostration; respiration gasp-ing; tongue dry, brown. These symptoms recorded at nine a. m. Stimuli were directed. He took the wine of the sulphate of quinine, alternated with wine whey, wine, or brandy and water, as either of these last might be most grateful. The sur-face was diligently rubbed with a warm embrocation, composed of camph. ol. Terebinth, and tinct. cantharid. The patient continued to sink; his skin grew cold, a clammy sweat broke out, and he died at half past 9 p. m.

The head was examined 27 hours after death. Upon re-moving the cranium, the dura mater was observed to be dis-tended with fluid. Upon dividing this membrane, between three and four ounces of limpid fluid escaped. Very little fluid was found in the ventricles, but much at the base of the brain. The brain was very soft, as if from long maceration in water. No marks of recent inflammation in the substance or membranes were noticed. The vessels were in their ordinary state, and no extravasated lymph was any where found.

CASE II.

This was a young man, aged 22. He had been, according to report, ill with fever seven days before I saw him. His appearance now, June 7th, is very bad. Great emaciation; hollow face, irregularly flushed, as in hectic; lips cracked and swollen; teeth covered with dark sordes; tongue brown, perfectly dry, and cracked; great thirst, and the mind as in advanced typhus gravior; pulse 60; skin moist, except on face, which last is hot as well as flushed.

June 8th. Bowels have been well evacuated; no pain in bowels, but some in right hypochondrium, aggravated by pressure. Leeches were applied here, and afterwards a blister. A mild alterative course was directed, and an attempt made to restore tone, or preserve what remained, by a prudent use of nutritious diet.

9th. Hypochondrium relieved, but appearance of patient not altered for the better.

10th. Head, and temples particularly, very hot; teeth and mouth and tongue perfectly dry; mind more wandering. Cold applications directed to head, and a blister to back of the neck.

11th. In some respects patient more comfortable; he had slept better, and expressed himself as feeling better. Voice stronger, and countenance somewhat improved. His pulse, however, which had been slow till to-day, was found to be 108, and no change had occurred in the mouth. An enema had procured three dejections.

12th. Pulse 84. Some moisture about the mouth, with an improvement in the appearance of the teeth and tongue.

13th. Favourable circumstances continue, and even further progress to amendment has been made. Bowels well.

14th. Without apparent cause, increase of disease. The skin is hot, dry; face flushed; pulse 108, throbbing; hands very hot; mouth as dry as ever; thirst urgent; makes no complaint; drowsy; sleep has been very imperfect; is delirious.

15th. Erysipelatous inflammation observed on nose, extending to cheek; cannot breathe through nose; voice very feeble; expectorates frothy, bloody mucus.

16th, 17th. Inflammation rapidly extended. It soon involved the eye-lids, and the eyes were closed. The whole head became exceedingly enlarged, presenting a most striking contrast to what existed when the patient was first visited. No impression was made on the disease by the treatment employed, and the patient died on the 18th, at 6 a. m.

No examination was made.

CASE III.

June 27th. M. M. aged 29, a year ago, was taken with cough and pain in left side of thorax, with palpitation and dyspnoea ; was very ill,—got somewhat better, but complaints continued, with occasional aggravations. Twelve weeks ago, complaints became worse ; cough and dyspnoea increased. Eight weeks since, abdomen began to swell, and is now greatly swollen and distended ; fluctuation very distinct ; has much pain in abdomen ; lower limbs much swollen,—œdematos,—have been scarified,—fluid continues to ooze from them ; has been very costive,—no dejections without cathartic medicines ; urine very scanty ; dyspnoea and palpitation very troublesome, especially on motion ; cannot lie in horizontal position ; has paroxysms of extreme distress, threatening suffocation ; for nearly two weeks past, has been expectorating bloody mucus,—sometimes blood, and in considerable quantity ; coughs a good deal ; tongue red, moist, slight white coat on sides ; much thirst ; is not without appetite ; pulse 108, very small.

From this enumeration of symptoms, no hope of cure could be entertained ; and there seemed no reason to look for any palliation from remedies. Means, however, were tried. Diuretics and expectorants, combined with tonics, were exhibited, and very unexpected relief was afforded the patient ; she could walk about, and sleep comparatively well ; the œdema entirely left the extremities, and the abdomen was diminished in size by several inches ; the quantity of urine was greatly increased, the bowels grew more regular, and the cough and expectoration ceased. These favourable circumstances continued till the 18th July. I found her, on that day, complaining of pain in the left side, over the heart, with dyspnoea. The pulse was more rapid, and heat increased. Leeches were applied to the side, over the seat of pain, and afterwards a blister. The remedies which had before been found useful were resorted to. These means, with others, produced no amendment. On the 21st, slight erysipelatous inflammation was observed on the left lower extremity, near the foot. It very rapidly increased ; and, on the 22d, was found to extend over the whole limb. Leg enormously enlarged. Vesications formed every where below the knee, and were at once filled with a dark fluid, which soon became black. A blister was applied over the whole limb. Various internal means were employed, with a view to support the strength, and to check the inflammation. The whole skin became intensely yellow. No relief occurred ; the inflammation extended almost over the whole of the left side of the trunk. The shoulder of this side, on the 23d, exhibited nearly the same appearances as the lower limb. She died this day at 11 p. m.

Remarks upon the Characteristic Effects of the Variations of Atmospheric Pressure upon the Human System. By DAVID B. SLACK, M.D.

[Communicated for the New-England Journal of Medicine and Surgery.]

IT will be the object of the following remarks to inquire whether many of those sensations and feelings which we experience from the variableness of the atmosphere, are not occasioned more by changes of pressure than of temperature. When we take a sudden cold, or feel a general lassitude and inability to move, or a general obtuseness of the senses, we immediately attribute these changes in the system to corresponding changes in the temperature of the atmosphere. The reason of this probably is, that the atmospheric changes from heat to cold, and the reverse, are much more obvious to the senses. We see the whole face of nature constantly changing by the influence of heat and cold. We witness whole seasons of snow, frost and ice; and a general shrinking of all material objects. We also witness the commencement and the termination of the growth of vegetables as well as of animals, effects produced by heat and cold. One hemisphere is teeming with luxuriant growth and life, suffused with elastic vapour and moistened by rain,—while the other is cold, barren, and locked in ice. Changes so great and so universally witnessed, may incline us to attribute to their causes, effects which are not produced by them. The great variety and the magnitude of the means which we employ to arm ourselves against the effects of heat and cold, accustom us to the idea of their universal agency in the production of disease. But notwithstanding our propensity to attribute so many of our diseases to the effects of heat and cold, our own reflection will furnish us with instances, when the thermometer has marked a sufficient degree of coolness for our comfort; but still we have gone from one room to another, and from one shade to another, in a kind of gasping state, like a squirrel under the receiver of an air pump, without finding the least relief from the faint and restless feelings which we experience. In this state of things our common language is, that the air is close and oppressive, when the contrary is true, and the air is loose and expansive. But before saying much about the characteristic effects of atmospheric pressure upon the human system, it may be proper to illustrate the magnitude and the variations of this pressure.

I know that, in a part of this illustration, I shall be singing

an old song to many of the profession; but, if I chance to add some new airs to it, I shall be as tolerable as most musical performers of the present day.

The effects of atmospheric pressure are not only much less obvious than those of heat and cold,—but in order to illustrate them, they require a reference to instruments quite as little known as the phenomena to be illustrated. Even the existence of atmospheric pressure was for ages unknown, or at least unacknowledged; and the discovery of it, is numbered among the greatest that have ever been made. And even now, it is a discovery to those only who have made it a subject of investigation. It is not surprising, therefore, that whilst the existence and the variations of this pressure so generally escape our notice, its influence should be so seldom brought to account for effects which a fertile imagination can account for in some other way.

The pressure of the atmosphere is often illustrated by the following very simple experiment. Fill a common wine glass or tumbler with water, place a smooth piece of paper over the mouth of it, and invert the glass upon the palm of the hand; now remove the hand, and the water in the glass will be supported. In this experiment, the glass resists the pressure of the air upon every side of it but the mouth, where the air touches the water, and supports, by its upward pressure, eight ounces, or a pound. If the length of this glass should be increased to thirty feet, and its diameter to that of a barrel or a hogshead, this long and heavy column would also be supported by the pressure of the air, as long as it was prevented from entering the tube. A perpendicular column of quicksilver, about 30 inches in height, and of any diameter, will be supported in the same way; and, as the pressure is exerted wholly upon the base of such a column, the weight of the column shows the exact quantity of pressure upon such a base or surface. 31 inches of quicksilver, or 32 feet of water, is the longest column which the pressure of the air will at any time support. It frequently will not support so much by two or three inches of the former, or three or four feet of the latter. But, by trials innumerable, it has been found, that the pressure of the atmosphere will support a perpendicular pillar of quicksilver between 28 and 31 inches in height, whether its diameter be equal to that of a quill, or to that of a barrel or a hogshead; and that the weight of such a pillar shows the exact quantity of pressure upon a space equal to that base.

A column of quicksilver, whose base is an inch square, and whose altitude varies from 28 to 31 inches, weighs from 13.75

to 15.23 pounds avoirdupois, the mean of which is 14.49 pounds; therefore, at a mean, the pressure of the atmosphere upon every square inch at the surface of the earth, is $14\frac{1}{2}$ pounds avoirdupois. The pressure of the atmosphere upon every square foot, which contains 144 square inches, is equal to 144 times $14\frac{1}{2}$, viz. to 2088 pounds. The pressure of the atmosphere upon the body of a middle-sized man, (calling his surface 12 square feet) is 12 times 2088 = 25,056 pounds, or more than eleven tons. This pressure is immense; but the invisibility of the atmosphere, its equal pressure upon all sides of us, and the counteracting expansive force of the air which is within our bodies, render us insensible of it,—and it is only by its variations that we are affected. But even these variations, when defined and made an object of thought, are (relatively to the human system) immense.

The range of the barometer in Great Britain is from 28 to 31 inches, a variation of three inches, though seldom more than two, and not frequently more than one. Dr Halley once observed it to rise one inch and a half, in less than six hours; and Dr Rush says, that in 1778, it suddenly fell, in Philadelphia, $\frac{7}{6}$ of an inch. The range of the barometer in Virginia, according to Mr Jefferson, is 1.86.

By the greatest variation of the barometer, (3 inches) there is removed from the body of a middle-sized man a weight of 2546.85 pounds, or upwards of one ton; by a fall of 2 inches, 1697.90,—and by a fall of one inch and a half, 1275.425 pounds. The following table will show the number of pounds and tenths removed from or added to the body of a middle-sized man, on the fall or rise of the barometer, for every tenth of an inch; and, if added to the scale of the barometer, may be of use in accounting for many of the phenomena of the atmosphere.

The rise or fall of the barometer, for	Inches.	Pounds.
	$\frac{1}{10}$	84.895
	$\frac{2}{10}$	169.790
	$\frac{3}{10}$	254.685
	$\frac{4}{10}$	339.580
	$\frac{5}{10}$	424.475
	$\frac{6}{10}$	509.370
	$\frac{7}{10}$	594.265
	$\frac{8}{10}$	679.160
	$\frac{9}{10}$	764.055
	1	848.95
	2	1697.90
	3	2546.85 more than one ton.

This table will enable us to see more distinctly the effects which even the smallest daily variations of the atmospheric pressure must have upon the human system. In New England the variations of the barometer do not appear to be so great as in Great Britain, and in many other places.

The following table, which I obtained from Mr S. Rodman Jr of New Bedford, will show some of the greatest variations of the barometer for a part of one day in each month of the last year ending July 31st. This table is undoubtedly correct, as far as it goes; but, as it only includes the period from sunrise till ten in the evening, it cannot be said, with certainty, to give the greatest variations.

TABLE.

	THERMOMETER.			BAROMETER.		
	Min.	Max.	10 o'clock.	Sunset.	2 o'clock.	10 o'clock.
1826, July 17,	69	77	74	73	79	69.30.19
" June 26,	67	71	68	68	72	65 30.06
" May 24,	63	73	67	61	76	61 30.00
" April 17,	45	59	53	50	60	45 29.71
" March 21,	37	43	39	32	51	32 29.64
" February 16,	23	34	34	35	35	22 30.56
" January 4,	35	32	28	23	46	23 29.51
1825, December 30,	40	41	42	43	44	37 30.22
" November 3,	38	50	45	39	50	38 30.38
" October 27,	62	65	62	63	66	60 30.21
" September 24,	69	74	61	54	77	54 29.70
" August 9,	72	82	78	76	82	72 30.02
" July 8,	63	72	69	65	73	63 30.09
						30.22 30.26
						30.29

From a perusal of this table, it will be seen, that on the 16th of February last, between sunrise and 10 o'clock P. M. the barometer fell 4-10 of an inch. Here was a sudden decrease of atmospheric pressure of 339.580 pounds from the body of a middle-sized man. The greatest variation during the whole year, as indicated by the table, was between the evening of the 3d of November, 1825, and the morning of the 4th of January, 1826, an interval of two months. In this interval, the barometer fell from 30.62 to 29.51, one inch and 11-100, which caused

a decrease of atmospheric pressure from the surface of the body of nearly a thousand pounds.

But it may be asked, what all this talk about the removal of this immense pressure amounts to, since we perceive nothing of it? The truth is, that we do perceive it, but not in the way we should feel the removal of a ton weight of lead or iron, which had been thrown upon us, and which we had in vain exerted all our strength to remove. In the latter case, if we felt at all, we should feel immensely light and elastic, and be fully sensible of our liberation from the oppressive confinement; but in the former, we feel sluggish, heavy and spiritless. These feelings are owing to an excessive expansion of the fluids, the vessels and the nerves of the system, produced by an expansion and an escape of a portion of the air incorporated with the living fibre and fluids.

The expansion and escape of this air, are illustrated by substances placed under the receiver of an air pump. As the air is exhausted from the receiver, the substances begin to expand, and the air which they contain to escape from them. The air contained in a piece of flour dough, will, in this manner, swell it up to twice its original size, and force open a thousand little pores. A squirrel placed under an exhausted receiver, is very sensibly expanded. The expansive force of air, and all elastic fluids, are equal to the pressure exerted upon them. When a portion of atmospheric pressure is removed from a vessel containing air, the air within expands with a corresponding force. Thus bottles filled with air, are burst open when the pressure is removed from the outside; and a bladder, partly filled with air, will lift a heavy weight. This consideration will assist us in explaining the effect produced on the human body by a diminution of atmospheric pressure. The air contained in the blood in circulation, by its expansion, increases the volume, and endeavours to escape; but being confined by the walls of the arteries from escaping laterally, and by the terminations of the capillary vessels from proceeding forward, it must swell the vessels, and a part of its force must be exerted in a retrograde direction, and in opposition to the muscular force of the heart. A similar effect must be produced upon the fluids of the lymphatic system. This revulsion in the circulation, and swelling of the vessels, will enable us to account for that retardation of the pulse,—that sense of fulness and oppression,—that blearedness of sight, dulness of hearing, and hollowness of the voice, which we experience when a heavy weight of air is removed from the surface of the system.

Upon the lungs, this removal of atmospheric pressure must

have a still greater effect than upon the other parts of the system. This organ is affected by it in a three-fold sense. In the first place, a large pressure is removed. Supposing a depression of the barometer one inch and a half, and allowing the surface of the lungs to contain 216 square inches, (one foot and a half,) there will be a removal of 160 pounds of pressure to which this organ is generally accustomed. In the second place, an expansion of the blood, of the blood-vessels, and of the anastamosing membrane, ensue, which contracts the diameter and lessens the capacity of the air cells. In the third place, the quantity of air taken in at each breath is one-twentieth lighter, owing to its rarity; and also less in volume, owing to the diminished capacity of the air cells to receive it. These causes, added to the largeness of the vessels of this organ, its incessant action, with the blood of the whole system dashing through it with a mighty force, while its pores or extreme vessels are thrown open by an expansion of its fluids, will help us to account for those frequent hemorrhages, catarrhs, peripneumonies and pleurisies, which terminate the health, the hopes and the lives of so many of both sexes and of all ages.

The barometrical and thermometrical changes of the atmosphere have been supposed to resemble each other so nearly in their effects upon the human system, as to occasion but few or no remarks upon their separate and characteristic effects. A rise of the thermometer is supposed to produce a fall of the barometer, and thereby to act as one and the same cause upon the human system. But this is not true. The effect of heat upon the atmosphere, is to rarify and heighten its volume, but not to diminish its weight. The barometer is often low when the thermometer is low, i. e. the air is light and cold at the same time. The greatest variations in the weight of the atmosphere generally take place in the winter months. By referring to the meteorological table, we shall see that on the 3d of November, 1825, the thermometer stood at 39° when the barometer stood highest at 30.62; and that on the 4th of January following, when the barometer stood lowest at 29.51, the thermometer stood at 35°.

According to the experiments and observations of Dr Halley and others, the changes in the weight of the atmosphere are caused by winds. 'The mercury's being at one time lower than at another,' says Dr Halley, 'is the effect of two contrary winds blowing from the place where the barometer stands, whereby the air of that place is carried both ways from it, and consequently the incumbent cylinder of air is diminished, and accordingly the mercury sinks. When two contrary winds

blow towards the place of observation, the air of other places is brought thither and accumulated, and of course rendered heavier. This explanation is confirmed both by reason and observation. In rapid currents of wind, the barometer is always found to stand low, whether the air is warm or cold; because the current carries off the air from the places over which it passes, faster than the neighbouring air falls in to fill up the vacancy.

The effects of atmospheric pressure are in a great measure unavoidable. Neither change of clothes, nor of place, will shield us from an increase or a decrease of this invisible weight. But the extremes of heat and cold, we can, in a great measure, avoid. Some cooling shade in summer, or congenial fire in winter, is always at hand.

The air, although invisible and intangible, is a much coarser fluid than heat or water,—and of course its liberation from a body, must cause much more derangement in the particles of that body. Water will pass through the pores of a vessel which is air tight. Now, although heat may open the pores of the system sufficient to produce perspiration, these pores may not be sufficiently expanded to admit the passage of air. On the other hand, when the air is too cold for perspiration, the pores of the system must often be thrown open, and all the fluids and vessels expanded, by a removal of atmospheric pressure. On a depression of the barometer 7-10 of an inch, a variation which, even in this country, sometimes happens in the course of a few hours, the equilibrium of the body is destroyed by a force of 600 pounds nearly, i. e. the fluids and vessels of the system are expanded with a force of 600 pounds; a force which, if employed in distending the body in one direction, would be sufficient to destroy life. May not this be the cause of that disease which we call emphysema, when not produced by wounds? Instances of pulmonary hemorrhages have been given by medical authors, as occurring in persons who have ascended high mountains. On the highest peak of the Andes, in South America, about five tons of atmospheric pressure are removed from the body of a middle-sized man. Accordingly the ascending this tremendous height has been found extremely dangerous to the hardiest constitutions. The common level of the earth is about 52 feet higher than the level of the ocean; consequently, in places upon the sea shore, the air is heavier than upon the common level of the land, by a difference of the weight of a column of air 52 feet in height. A person who lives on the sea shore, is accustomed to the weight

of about 46 pounds of atmospheric pressure more than he who lives upon the common level of the land. Hence one reason why people of weak lungs, who migrate from those elevated situations in the back country, which are much higher than the common level of the land, find the sea air peculiarly obnoxious.

But although an increase of atmospheric pressure must have a deleterious effect upon the lungs, its general effect must be much less injurious than a decrease. Accordingly, we find people able to descend in diving bells, until the pressure amounts to double or treble the whole weight of the atmosphere. By a descent of 32 feet only, the pressure upon the body is doubled, the weight of eleven tons added to the pressure which they are accustomed to support. But the submarine explorer, like the aeronaut who ascends to the height of the Andes, or the chemist who enters the oven to fry his eggs, or takes his exhilarating doses of gas, ventures upon a dangerous extreme; and although he, and the aeronaut, and the chemist, may survive their experiments, others will sicken and die from changes which to them may be imperceptible.

The peculiar effects of both an increase and a decrease of atmospheric pressure, must depend greatly upon the infrequency of the change; for like other changes, the less frequently they happen in the course of the year, the more deleterious must be their effects.

Since the variations of atmospheric pressure are felt by every one, and can be made a subject both of observation and calculation, they deserve a thorough investigation, as a cause of disease, (before recurring to hypothesis). As well in our own country as in England, we have seen, that pressures of 600, 800 and 1000 pounds, are sometimes removed from the human system, in short spaces of time; i. e. the fluids and vessels of the system are expanded by forces of 600, 800 and 1000 pounds, and probably by forces much greater, though I have no data at present to confirm the truth of the supposition.

But even the lesser variations noticed in our table of pressures, are sufficient to cause great derangements in the system; to force open the pores, to swell the blood vessels and nerves, to shorten the breath, to weaken the voice, to thicken the membranes of the eye and of the ear, and to cause compressions of the brain, sufficient to produce apoplexies, epilepsies, palsies and insanity. They may account for many of those mysterious colds, which people sometimes take, when there has been little or no change of temperature, either of the air or of the system. In a word, do not these variations, especially when

they coincide with the effects of heat and cold and moisture,* look like more efficient causes for the production of fevers, than all that paraphernalia of marsh miasmata, putrid exhalations and noxious gas, which some people not only inhale with impunity, but even grow fat upon them?

Against the peculiar effects of the variations of atmospheric pressure, we are able to make but little defence. We have no artificial means of condensing the air, even for our dwellings, (and even if we had, we should hardly employ them). We can, therefore, take only those precautions in calm weather, which we employ against the changes of temperature,—and make the best of an evil which seems almost inevitable. But in strong windy weather, when the greatest variations occur, the evil may be partially averted in our dwellings and hospitals, by free openings in that side of the buildings towards which the wind blows. By this means, the air in the rooms will be considerably condensed, provided the other sides of the rooms are tight and secure. If these hints should lead others, of more extensive means of research, and of more competent abilities, to a thorough investigation of the subject, they will not be given in vain;—and, should the truth of my views be established, though it might be found difficult to obviate the effects of this uncontrollable agent, yet it will be something to be freed from vain apprehensions of imaginary agents, and from troublesome and useless precautions against them.

Providence, Sept. 1826.

MISCELLANEOUS NOTICES.

Extraordinary Case of Hydrocephalus. (Annali Universali.)—Excepting the case spoken of by BARTHOLIN, wherein the head was four feet in circumference, a case related by Dr GOEBEL probably affords an example of one of the largest heads mentioned in the records of medicine. The child was born hydrocephalic, and is now six years old. At one year old, the head was nearly as large as it is at present. The size is so great, that the left ear is situated horizontally: the superior fontanel is five inches across. The hair has never grown at all. The whole

* See Number 4, New Series, of the Philadelphia Journal, Art. VII, on Miasm.—by John Bell, M.D.

body is extremely emaciated, and forms a singular contrast with the size of the head. The child weighs thirty-four pounds altogether, the head weighing twenty-eight alone. The largest diameter of the head is fourteen inches two-thirds, and the greatest circumference thirty-one inches and a half. The rotundity of the cranium is not uniform, but presents various protuberances. The child eats well, and begins to speak imperfectly; his intellectual faculties appear to be tolerably developed. Both the urine and stools pass involuntarily. His sleep is profound, and but of short duration.—*Lond. Med. and Phys. Journal.*

On the Duration of Human Life in France. (Revue Medicale.)—At a late meeting of the Royal Institute of France, M. FOURIER read a very interesting Memoir, by M. BENVISTAN DE CHATEAUNEF, on the Changes that the Laws of Mortality have undergone, from 1775 up to 1825. The Memoir contains a great many curious and interesting details, of which the following are a few:

In 1775, of every 100 children, 50 } died before two years
In 1825, —————— 38.3 } old.

This difference may in a great measure be attributed to the introduction of vaccination.

Formerly, of every 100 children, 55.5 } died before ten years
In the present day, out of the same number 47.7 } old.

Formerly, of every 100 male children, only 21.5 arrived at fifty years of age;

In the present day, out of the same number, 32.5 come to fifty.

In examining the other epochs of life, and comparing them, the comparison is always in favour of the present time.

Formerly the Mortality was annually 1 in 30,
Now it is only 1 in 39.

Formerly the Births were annually 1 in 25,
Now 1 in 31.

Formerly Marriages were annually 1 in 111,
Now 1 in 135.

The fecundity appears to have been the same formerly as at the present time; the births, as well as deaths, have diminished; and the term of human life is longer. One may discover a cause of the diminution of births in the fewer marriages that now take place; but the number of foundlings is more than tripled since 1780. Population, however, must increase, because the term of life is longer; and it is the duration of life

that must increase it, rather than the birth of a few children more, of whom death cuts off 48 in every 100 before the age of two years.

The difference in the population of France is also given, being the result of a mean of ten years for the first epoch, and of eight for the second.

In 1780, the Population was 24,800,000 ; in 1826, 30,400,000

—	Deaths	—	818,490	—	761,230,
—	Births	—	963,200	—	957,970,
—	Marriages	—	213,770	—	222,570,
—	Natural Children,	—	20,480	—	65,760.

The Mortality at different ages was as following :

In 1780, from birth to 10 years of age, in 100, 55.5 ; in 1825, 43.7,

—	—	50	—	78.5	—	67.5,
—	—	60	—	85	—	76.

It is thus shown that the lot of mankind, with regard to the mean duration of life, has prodigiously increased in France.—

Lond. Med. and Phys. Journal.

Case of Spina Bifida in the Neck, cured by Puncture. (*Ibid.*)—M. LABONNE has recorded a case of this kind. A child was born with a tumour on the cervical vertebræ, as large as an orange. It was moveable, with red spots on the surface, and was of equal dimensions at every point, even the base. Various stimulating applications were resorted to ; notwithstanding which, the tumour increased in size. At the end of a year, the infant was lively, and appeared well ; but M. Labonne, urged by the entreaties of the mother to do something for her child, made five little punctures at the sides of the tumor, three days after the administration of a gentle purgative. A lemon-coloured fluid escaped, and continued to ooze for eight days : the tumor then diminished. Emollient cataplasms were laid over the part, and slight compression applied to the head. An eruption supervened ; little papulæ, like flea-bites, appeared on the spine ; they suppurated, and the tumor entirely subsided. The writer concludes with some observations on the superiority of the puncture, in such cases, over cautery, caustic, compression, and the other methods which have been proposed.—*Lond. Med. and Phys. Journal.*

Snails as an Article of Food.—M. DE MARTENS states, that the annual export of snails (*Helix pomatia*) from Ulm, by the Danube, for the purpose of being used as food, in the season of Lent, by the convents of Austria, amounted formerly to ten millions of these animals. They were fattened in the gardens

in the neighbourhood. This species of snail is not the only one which has been used as food; for, before the revolution in France, they exported large quantities of the *Helix aspersa* from the coasts of Aunis and Saintonge, in barrels, for the Antilles. This species of commerce is now much diminished, though they are still sometimes sent to the Antilles and Senegal.

The consumption of snails is still very considerable in the departments of Charente Inferieure and Gironde. The consumption in the Isle de Rhé alone is estimated in value at 25,000 francs; and at Marseilles the commerce in these animals is considerable. The species eaten are *Helix rhodostoma*, *H. aspersa*, and *H. vermiculata*. In Spain, in Italy, in Turkey, and the Levant, the use of snails as food is common. It is only in Britain that the Roman conquerors have failed to leave a taste for a luxury which was so much used by the higher classes in ancient Rome; though it would be very desirable, for the sake of the produce of our gardens, that some of the leaders of fashion in eating would, by introducing them at table, take the most effectual method of keeping our native species within due bounds.—*Edin. Jour. of Science.*

Dr Goelis's Practice in some Diseases of Children. (Journal der Practischen Heilkunde, Von Hufeland und Oxon, April 1825.)—
 ‘*Inflammatory Diseases.* According to the experience of Dr Goelis, two-thirds of all the diseases of children are inflammatory; hence stimulating remedies must be very cautiously resorted to; and in doubtful cases the treatment should be very mild.’

‘*Angina Faucium.*—Goelis has a peculiar manner and ability in opening the mouths of children, so as to obtain a complete view of the fauces and pharynx. He places his little finger upon the root of the tongue, in consequence of which an attempt is made to vomit, and the fauces are thoroughly exposed to view.

‘When catarrh is general, the fauces are always examined, that an angina may not be overlooked.’

‘*Inflammation of the Medulla Spinalis.*—This disease may be certainly known by the following symptoms:—extended position of the body, with the arms close to the trunk, the elbow joint, somewhat, but the wrists more, moveable, so that the hand can be raised to the chest, but not to the mouth. The legs stretched out, lie closed together, and upon any attempt to separate them the child shrieks. He shrieks likewise when the trunk is moved by means of the shoulders; and there is a tendency to diarrhoea. These are the symptoms before the

inflammation reaches the brain; when this happens, convulsions ensue, and the diarrhœa ceases. The treatment must be strictly antiphlogistic.'

'*Hooping Cough*.—Goelis praises belladonna in this disease, when it is purely spasmodic, and totally free from inflammatory action. The root he considers superior to the leaf, because the latter is sometimes too powerful. His prescription is the following:

'Radic. belladonnæ gr. j.; opii pur. gr. ii.; sacch. alb. gr. iv.; fiat pulvis in dos. viij. dividend.: one to be taken night and morning; or, according to circumstances, every three hours, till the countenance becomes flushed.'

'The tartarised antimonial ointment is generally useless, as well as cruel, in hooping cough.'

'*Abdominal Diseases of Children*.—When the watery diarrhœa of children is preceded by pain in the abdomen, it is probable that a sub-inflammatory action is always present.' This remark of Dr Goelis is very valuable, though his practice is rather inert; as he recommends diluents alone for this disorder. We generally apply leeches to the abdomen of children in watery colic and diarrhœa with great advantage. The disease is indeed an inflammation of the mucous coat of the intestines.

'*Infarctus Intestinorum—Atrophy*.—Goelis has remarked a peculiar diagnostic symptom in this disease. It is a singular tuberculated condition of the cheeks of children, situated principally over the cheek bone, as if an almond were under the skin, and very perceptible when the child cries or laughs. When this symptom is present, the disease is incurable.' The author of the paper has added, in a note, that this observation is confirmed by his own experience. We have to regret, however, that we have not a more defined account of the disease meant by *infarctus intestinorum*. The atrophy of medical authors, we know, comprehends many different diseases of the abdomen, having emaciation, very frequently, the only circumstance in common. It is desirable to ascertain the accuracy of Goelis's remark.

'*Thrombus Neonatorum*.—Dr Goelis is adverse to opening the sanguineous tumours upon the heads of new-born children, because in his experience they have generally died.' In this result, however, Dr Brosius does not concur; neither have we ourselves ever seen any evil ensue from opening them. At the same time, we believe it to be utterly unnecessary, as they generally disappear spontaneously. We usually, however,

apply a lotion, with muriate of ammonia; but we are not prepared to say that any real benefit is derived from it.

‘*Febris Cœrulea*.—This is a disease of a peculiar nature, not to be confounded with the *morbus cœruleus*, which is the consequence of disease of the heart. This is its description:—

‘It attacks children from four till twelve months old,—none older; and these for the most part of the poorer class, who live upon coarse food, and dwell in dirty and damp habitations. The disease comes on in paroxysms. Children become suddenly blue, respiration difficult, and the pulse small, hard, and wiry. These attacks endure for some time, disappear, and return again. Soon the paroxysms become more frequent, and at length pass into each other. The skin is frequently covered with a clammy perspiration. Death takes place suddenly. On examination of the body, the blood vessels are very distended.

‘Dr Goelis considers this disease as of a spasmodic nature, and recommends preparations of opium, together, however, with purgatives of calomel and rhubarb.

‘*Convulsions*.—The convulsions of infants are for the most part the consequence of inflammatory action of the brain; and Goelis never admits of stimulating remedies, as these only render, according to his experience, the convulsions more frequent. Calomel is one of his principal medicines.

‘*Scarlatina*.—When the eruption in this disease does not follow the proper course, Goelis recommends bathing the body with tepid water as very advantageous; while, on the other hand, sudorifics, in the commencement of the disease, he has always found injurious.

‘*Morbilli—Measles*.—When the measles occur during vaccination, they both run their course undisturbed by each other.

‘*Tinea Capitis*.—The treatment of this disease is tolerably well known now in England; and Dr Goelis asserts it to be of scrofulous origin; and Dr Brosius remarks, that ‘when the dried crust of tinea, finely powdered, is rubbed by any one upon the moist skin, true scrofula ensues.’

‘*Scabies*.—There is a species of scabies, or rather a *psora cutanea*, which is not contagious. It frequently appears after vaccination.’—*Lond. Med. Rep. and Review*.

Animal Magnetism. (R  v. M  d.)—‘I have frequently,’ says M. Rostan, ‘repeated the following experiment, but was at last obliged to desist from it on account of the prodigious fatigue it occasioned to my somnambulist, who told me that if I continued it she should become mad. The experiment was made in the

presence of my colleague and friend M. Ferrus. I placed my watch within three or four inches of the patient's occiput, and asked her if she saw any thing.' 'To be sure, I see something bright: that hurts me.' Her countenance was expressive of pain, and astonishment was reflected in ours, (*'la nôtre devait exprimer l'étonnement. Nous nous regardâmes'*, says the original, which is very dramatic, but not easily transferred into our matter-of-fact language.) M. Ferrus was the first to speak, and observed, since she saw something shining, she could doubtless say what it was. 'What is it that shines?' 'Oh, I don't know; I can't tell.' 'Look again.' 'Stop, that fatigues me—stop;' and after a moment of great attention, 'it is a watch.' 'But,' says M. Ferrus, (we half suspect this 'friend and colleague' not to have been quite so great a dupe as he affected to be,) 'if she sees the watch, she can doubtless say what o'clock it is.' 'What o'clock is it?' 'Oh, me, that is too difficult.' 'Try.' 'Stop; I will endeavour—I may perhaps tell the hour, but not the minutes;' and after very great attention,—'it wants ten minutes to eight,' which was right. M. Ferrus wished to repeat the experiment himself, and did so with complete success: the hands of the watch were repeatedly moved; but the patient was never deceived.

What is to be said, says Dr Dupau, (who has endeavoured to expose this business in some letters addressed to Professor Alibert,) when a man tells you I have *seen* this. Fontenelle once replied to a man on such an occasion—'I believe you have seen it; but if I had seen it, I would not believe it.' It is needless to consider the various means of deception which might have been made available to the above experiment; and we agree with Dr Dupau, that we are justified in supposing any thing before believing in narrations of this kind. It may be worth while to know M. Rostan's *theory* of animal magnetism; premising that its cause is ascribed to the nervous fluid, which, circulating in the nervous canals, and also passing out of them, forms a nervous atmosphere capable of influencing the will.

'This active nervous atmosphere of the magnetiser places itself in relation with the passive nervous atmosphere of the person magnetised: the latter becomes so affected, that intuition and all the faculties of the external senses are at once abolished; and the internal impressions, and those communicated by the magnetiser, are conveyed to the brain by another channel. This nervous agent possesses the property of being able to penetrate solid bodies—a limited property doubtless, but one which explains the manner in which the somnam-

bulists are influenced through partitions and doors, and also their mode of perceiving odours, tastes, &c. The commixture of these two nervous atmospheres *fully* explains the communication of the desires, the will, and even the thoughts of the magnetiser, with those of the person magnetised. These desires and will being actions of the brain, are by it transmitted by means of the nerves to and *beyond* the surface of the body; and when the two nervous atmospheres meet, they are so identified as to form but one: they perceive, they think together; but one of them is always in a state of dependance upon the other.

It is unnecessary for us to endeavour to shew that the effects produced on patients who believe in the above theory, may be accounted for without admitting its truth. There can be no question at all concerning the extraordinary influence which dexterous pretenders to the mystery of magnetism may exert over the mind and body of the weak and deluded. The most common results appear to be a state resembling somnambulism, with a disposition to reverie; but it is important to remember, that paralysis has not unfrequently been caused by these experiments, and that mental alienation has sometimes been produced. On the moral inconveniences that may arise from such a subjugation of one mind to another, we need not make any remark. The subject would scarcely have justified any observations being made upon it, were it not that animal magnetism seems likely to come into favour with certain physicians in France, no less than with those in what has been called the 'classic land of magnetism,'—Germany. A commission, consisting of MM. Husson, Adelon, Burdin, Marc, and Pariset, have recommended the serious notice of this subject, because, say they, in 'matters of science' the first judgment pronounced may have been defective, alluding to the opinion publicly expressed in 1784; because the new theory and practice of magnetism differs from the old one; because the honour of French physicians is concerned in their not being behind those of other nations; and, lastly, because animal magnetism being professed as a *secret medicine* comes under the proper cognisance of the Academy.

The report having been confirmed by a majority of the votes of the academicians, owing, it would seem, in a great measure to the eloquence of M. Husson, we may expect animal magnetism once more to become fashionable; and to furnish, together with the cures of the Prince Hohenlohe and the dreams of the Sœur Nativité, a humiliating proof that the advance of the human mind towards truth is any thing but steady.—*Lond. Med. Repos. and Review.*

Twin Births. (*Revue Médicale, Mars 1826.*)—‘From a review of registers at Paris, out of 37,441 accouchements there have been 36,992 parturitions; 444 twins; 5 triplets.

‘*Sexes.*—Out of fifty-four twin cases, taken at hazard, five have given a boy and a girl; thirteen, two girls; and twenty-six, two boys; this last proportion, which is one-half of the whole, seems to be the most common. In two triplets, observed by M. La Chapelle, in one there were three girls; and in the other, two girls and a boy.

‘*Volume and Weight.*—Twins are generally smaller than infants which are alone in the womb. The average weight of twins is four pounds each, and the extremes are three pounds and eight pounds, so that the same total weight remains. Triplets have rarely a less weight than twins, provided they are not born prematurely.

‘*Dispositions of the Envelopes.*—Sometimes the twins are contained in one membranous envelop only, and are bathed in the same waters; but this is a very rare case. Madame La Chapelle has never observed it; and both twins and triplets delivered by her have been each in a separate sac, and divided by an union of the two chorions and the two amnios. The epichorion is simple, and surrounded by both sacs. In some cases, the chorion does not make a part of the division; and there is but one for both fœtuses. Dr Duges himself, however, has never met with this disposition of the membranes. The placenta is more frequently single than otherwise; the proportion has been almost as three to two. Moreover, we meet with every variation of union, from single contact to complete union, without even a line of separation being visible; so that sometimes there is an anastomosis of the vessels of one fœtus with those of the other; and sometimes the anastomosis does not exist. When it is present, it is not by means of the capillary system; for, in the same placenta, even the capillaries of one cotyledon do not communicate with those of the other. The anastomosis is always effected by large vessels, such as ramify on the foetal surface of the placenta.

‘*Position.*—In comparing the position of twins, out of fifty-four accouchements, in thirty-six the infants have presented the same part to the mouth of the uterus, as the head, the buttocks, &c.; eighteen presented different parts, as one the head, another the shoulder, &c. In this last case, it was not always the first-born which exhibited the most favourable position.’—*Lond. Med. Repos. and Review.*

An Account of the Pinta, or Blue-stain, a singular Cutaneous Disease prevailing in Mexico. By SAMUEL McCLELLAN, M.D.—
‘From the information which I obtained from the most intelligent of the natives, I can only state that the disease, denominated by them the *pinta*, or blue-stain, made its appearance in the neighbourhood of the Volcano of Jorullo,* in the northern part of the province of Valladolid, shortly after its first eruption, and has gradually extended south, through the whole of the *Tierra Caliente*,† as far as the town of Mascala, on the road from Mexico to Acapulco, and I believe still further south. It has generally prevailed among the lower class of people, who are of a dark colour; and is said to commence with slight rigours and nausea, followed by some degree of fever. These symptoms last only for a few days, when, on their subsiding, discoloured spots are discovered upon the face, breast, and limbs, of a lighter or yellowish appearance, which gradually change to a blue, and in advanced stages to a black, almost resembling the negro skin. In this stage, the skin also has a rough and scaly appearance, and is somewhat inflamed, forming, when injured, either by accident or the stings of insects, deep and foul-looking ulcers, with hardened, and, in some cases that I saw, inverted edges, which the people themselves consider incurable. The perspiration of these persons is peculiarly offensive; but I believe their general health is not much affected, at least I did not understand that they suffered more from other complaints than those who were free from it. There is at present in the city of Mexico a regiment composed of persons affected with this disease, denominated the *Pinta* regiment, and officered by white men, who are appointed by government. A soldier’s life, of course, subjects them to fatigue and privations, which, however, they appear to endure without more complaint or injury than others. They very generally, how-

* ‘The volcano of Jorullo, situated upon an estate of that name, broke out in the year 1775, from a level plain, and rose in one night to the height of between three and four thousand feet. Arrowsmith has given the name incorrectly in his map, by attempting to spell it in English as it is pronounced by the Mexicans.’

† ‘The *Tierra Caliente*, or hot country, is divided from the *coast*, (a narrow tract of land, so called by the natives, extending along the Pacific, from two to six leagues in width,) by the *Sierra Madre*, or Mother Mountains, a rough and broken chain, which running parallel to the coast, is from thirty to seventy leagues across. This country lies between the Mother Mountains and the foot of the great *Cordillera* of *Anahuac*, and extends through the provinces of Valladolid and Mexico, into that of Puebla. It varies in width from thirty to sixty miles. The surface is broken by numerous ridges of high hills, with the valleys lying around their bases, and communicating with each other, well watered by numerous rivers. The soil is very fine, admitting the cultivation of all the products of a tropical climate.’

ever, in common with all others who use the same diet,* are affected with dyspeptic complaints.

‘ The disease is said to be infectious, and facts seem to corroborate the account. I have seen persons who were born and bred up in the higher districts, where it is not known except by report, after having lived for a few years in the low country in habits of intimacy with the people, return with the disease. Nurses who are infected with it, and have been employed in the higher districts, have communicated it to children; but these, when treated in the first stage by light cathartics, and some of the active diaphoretic plants, with which that country abounds, are said to have been cured.

‘ There are many persons of the higher classes, however, who have resided nearly the whole of their lives among the Pintoes, and have even employed them occasionally as servants in their houses, without contracting it; but such have always enjoined the greatest cleanliness both upon themselves and servants, by repeated bathings, ablutions, &c. Others, who have not observed these precautions, have not been so fortunate; but among these I have not seen the disease so far advanced as among the lower classes. I do not recollect of having myself seen a single instance where the disease had been contracted out of the infected district, although these people are frequently met in almost all parts of the country west of the city of Mexico, passing and repassing with their produce, and other articles for sale; nor is the disease known otherwise than by name on the Pacific coast, or in other adjacent tracts of country which are separated from the *Tierra Caliente* only by intervening ridges of mountains.

‘ Whether this disease is ever communicated by propagation or not, is very difficult to determine. In all the families in which I witnessed it, the children were infected; but whether it was inherited, or communicated to them by contact, is quite uncertain. I have seen it in infants at the breast. Others were said to have been free from it until a year or two of age. Such are always brought up, as they afterwards live, in extreme filth. It should be recollected also, that their diet is far from being delicious or wholesome.

‘ It appears to me that this disease cannot with propriety be identified with leprosy. If it be, however, it must certainly be considered as a remarkable variety, and of an uncommonly mild form. I regarded it as merely a cutaneous disease, as I

* ‘ The lower classes of people in Mexico live chiefly on corn-cakes and meat cooked with lard and red-pepper.’

saw it affecting no other part of the body. The people believe it to be distinct from leprosy, which disease is not unknown among them, since I was called to see two reputed cases of it at Rosario, near the district of the Pintoes. An elder brother of these two had been previously sent to the mountains by the alcaldes of the village to prevent an extension of what they considered to be the genuine leprosy.

‘The physicians of the country, in whom however but little confidence is to be placed, regard the pinta as a specific disease, and as generally incurable. I never heard of even an attempt to cure it in the low country. It was at Temascaltepec, five or six thousand feet above the level of the ocean, that it was said to have been cured in the cases of infants when taken from their nurses.’—*American Medical Review*, vol. ii.

Case of obstinate Vomiting cured by the Extract of Marigold.
By Dr CARTER of the Kent and Canterbury Hospitals.—This was a curious case, on more accounts than one. The patient was a female, aged 24 years, who applied on the 26th August, 1824, complaining of vomiting her food soon after it was taken, attended with burning pain at the pit of the stomach, and between the shoulders. This state had continued for two years. The pulse was frequent and feeble, tongue clean, bowels constipated, catamenia regular. There was tenderness about the scrobiculus cordis, anxious countenance, palpitation—considerable and progressive emaciation. She had been bled, blistered, and had taken various remedies, but without effect, and Dr Carter also prescribed different medicines without making any impression on the complaint. He then tried an old remedy, the extract of calendula or marigold, in doses of three grains every three hours, all other medicines being laid aside. This produced almost immediate cessation of the vomiting. Pain, however, continuing in the region of the stomach, leeches were, from time to time, applied, and the bowels kept moderately open. The patient gradually improved, and gained flesh and strength. She was ultimately discharged cured.

Dr C. had his attention directed to this medicine from a notice in a foreign journal, where its efficacy was stated in scirrhus and cancer. Upon giving the medicine, the vomiting ceased, and did not return for three months, the time she was under observation. Should any one be inclined to attribute the cure to the leaving off all other remedies, Dr C. observes that this was done before, but without the same effect. The calendula is a medicine of ancient, though of almost forgotten, reputation. It seems to deserve a trial in chronic affections of the stomach.

In a case of organic disease of the uterus, our author exhibited the calendula, with the effect of mitigating pain and lessening the discharge. The preparation was an aqueous extract of the flowers, and was furnished by Mr Battley. About a pound of the flowers produced an ounce of the extract.—*Lond. Medico-Chir. Review.*

Case of Difficult Parturition.—Numerous are the difficulties which occasionally attend the parturient state, especially in this advanced æra of civilization. The case which Mr Jackson has detailed was a very puzzling one, and the true nature of the phenomena were (fortunately) not unravelled by the scalpel. A young married woman had been six hours in labour with her second child when Mr J. saw her. He found the concavity of the sacrum completely filled by a soft tumour, which was situated behind the rectum, and pushed both that and the vagina against the arch of the pubes. What was to be done? The tumour could not be punctured, except through the posterior parietes of the rectum, which Mr J. was unwilling to injure. By great exertion a foot was brought down along the side of the tumour, and ultimately the body—lastly, but with extreme difficulty, the head. The day but one after delivery, the bowels were obstructed, and the urine could only be passed with great difficulty. On examining the rectum, Mr J. ascertained a very perceptible fulness and fluctuation between the anus and os coccygis. A lancet was, therefore, pushed in about an inch from the latter: this was followed by about six pints of a limpid straw-coloured fluid, and succeeded by a most agonising pain in the head, which was relieved by the recumbent posture. It was necessary to repeat this operation many times; and, at one period, the woman's life appeared in great danger, as the slightest pressure caused severe suffering along the dorsal vertebrae. The fluid discharged about this time also, was of a deep brown colour, and tinged with blood. She complained of a numb sensation in the lower extremities, with heat, thirst, and quick pulse. Leeches were applied along the spine, and other antiphlogistic measures were pursued. Notwithstanding these formidable phenomena, a healthy condition of the parts was ultimately re-established, and she has since borne a child without much difficulty.

It is hard to say what was the origin or precise nature of this complaint. Dr Denman appears to allude to something of the kind, under the term 'dropsy of the perineum'; but this is a vague expression. We are inclined to agree with Mr Jack-

son in supposing the fluid to have come from a diseased ovary.—*Ibid.*

Actual Cautery in Traumatic Erysipelas. By BARON LARREY. (*Révue Medicale Fevrier, 1826.*)—The Baron observes that, on the fourth or fifth day after the infliction of a wound, there must necessarily arise an inflammation on the borders and parietes of the said wound which produces a too speedy union, especially if the division of continuity be not simple and uniform, like that made by the surgeon's instruments. Improper applications, the contact of cold air, biliary irritation, and many other causes, increase this inflammation, which often becomes of an erysipelatous character, and spreads rapidly to other parts. If there be any deleterious miasmata in the atmosphere at the time, the mischief is increased, and the erysipelas often ends in gangrene. If the biliary secretion be in a bad state, the erysipelas assumes an unhealthy aspect—the wound becomes yellow at the bottom, and hepatitis is often a complication. If the stomach be in a state of debility, the erysipelas becomes pale, the edges of the wound tumid, and the base covered with a thick yellowish and putrescent substance, characteristic of debility and hospital gangrene. To this species of erysipelas Baron Larrey applies the actual cautery, near to the wound, and affirms that it arrests at once the progress of the phlegmasia. The application causes very little pain, and is accompanied and succeeded—1st, by a gaziform effluvia of an animal odour—2d, by the disappearance of the heat and tensive pain of the part inflamed—3d, by the dissipation also of the redness and swelling of the part,—4thly, these cauterisations are not followed by any suppuration, or gangrene, the burnt skin merely peeling off in carbonaceous crusts, leaving no sensible cicatrices; 5thly, the purulent discharge from the wound, which had ceased on the appearance of the erysipelas, is soon re-produced; 6th, the strength of the patient is increased, the functions of the viscera re-established, and the exanthematic disease put a stop to. The hot iron is to be applied to the reddest points of the erysipelas. Some cases in illustration are related by the Baron, but they need not be noticed in this place.—*Ibid.*

Parallel between the Symptoms of the Cerebral Fever and Worm Fever of Children. By M. GINTRAE, Physician of Bordeaux. (*Journal Général de Médecine, 1825.*)—The similarity, or at least the analogy, of cerebral irritation and worm affections, or more

properly speaking, intestinal affections, in children, has deceived the most attentive physicians, and is hourly leading a great many practitioners into erroneous decisions and improper practice, in every country of Europe. How common is it to hear a man speak of the number of cases of acute hydrocephalus or brain fever he has had to treat, and the great many cures he has performed of such; when in reality, three-fourths of these cases were infantile remittent, or intestinal fever. The following parallel, though far from being free from objections, may be of some use to the young practitioner at the bed-side of sickness. It may be premised that there is no one pathological symptom which can be depended on as characterising idiopathic cerebral fever, nor yet the intestinal. We must draw our conclusions from the whole of the symptoms taken collectively.

1. Those children who are most disposed to worm or intestinal affections, are of the lymphatic temperament, weak constitution, and lax fibre. Those most disposed to cerebral irritations, on the contrary, are the robust, the active, the irritable, and of the sanguine temperament.

2. The *former* have large bellies, and eat much. The *latter* have large heads, and the facial angle near the 90th degree.

3. Children who have previously had worms or intestinal affections, are more disposed to have the same again, and, therefore, their previous history should be carefully inquired into. On the other hand, there is but too much reason to believe that the disposition to cerebral irritation is often hereditary, and, therefore, the history of the family is deserving of investigation.

4. Female children are supposed to be more frequently affected with worms, and males with cerebral fever.

5. This last (cerebral) affection often results from external causes, as blows on the head; falls, insolation, suppression of discharges from the neighbourhood of the head, or of cutaneous eruptions. The production of worms and of intestinal affections, is generally facilitated by all debilitating causes, bad diet, too much vegetables, pastry, salted viands, and improper drink, to which may be added, too much medicine.

6. In cerebral fever we may have pain in the belly; but where there are worms in the primæ viæ, this pain is much greater, and especially when the stomach is empty. It is relieved by the ingestion of food.

7. Vomiting is a common symptom at the commencement of cerebral fever—it rarely takes place in worm affections, unless

these animals ascend into the stomach, and then they are often discharged during vomiting.

8. In cerebral affections the appetite is impaired or annihilated—in worm affections it is commonly augmented.

9. In idiopathic cerebral affection the abdomen becomes flattened. Dr Goelis has particularly insisted on the importance of this symptom. Where worms are the cause of the fever, the belly is hard and distended—borborygmi are heard, and there are eructations.

10. Constipation is almost always an attendant on idiopathic cerebral fever, and when the motions appear, they are disordered, generally green, or slimy, or gelatinous. Worms, on the other hand, generally keep up more or less of diarrhoea, the motions being mucous, glairy, and fetid.

11. In worm affections the secretion of bile is increased. Brera regards this sign as very remarkable. It seldom obtains in cerebral affections, where the mouth is generally dry.

12. Cerebral irritations produce, in the beginning, redness at the tip, and along the edges of the tongue—worms, on the contrary, cause the root and middle of the tongue to be covered with a thick mucous fur.

13. The breath is fetid in worm affections, but rarely so in cerebral.

14. Cephalalgia is an almost constant symptom of cerebral affection. It is acute, and often causes the child to cry out, *oh, my head!* In verminous fever, the pain never arrives at this height. It is vague, obtuse, and the child seldom complains of it in particular.

15. In cerebral affections, the child often directs his hand to his head—while in verminous diseases, it is more commonly to the nose that the fingers are directed, in consequence of the itching there.

16. In both kinds of affection, the sleep is occasionally disturbed—but where the brain is the seat of lesion, the sleep is never natural—it is a kind of drowsiness, amidst which the moanings of the child are frequently heard—in worm affections, the sleep is profound, though often interrupted by dreams and startings.

17. In both affections we observe grindings of the teeth; but when there are worms, we will often perceive a movement of deglutition during sleep, hiccup, and occasionally certain convulsive movements of the thumb and index finger.

18. The convulsions which we see both in cerebral and worm affections, may be very severe in either case, and greatly resemble each other; but in the former, they are generally

preceded by pain in the head, drowsiness, fever, &c. whereas, in the *latter* class, the convulsions are rarely ushered in by the symptoms abovementioned.

19. The coma which we occasionally observe in verminous affections, comes on very suddenly ; but does not last long, and often leaves no trace of its existence.

20. The delirium, in cerebral fever is very rarely violent—that produced by worms, occasions more agitation, and more extravagant actions.

21. The paralyses that occur are always more serious and permanent in the idiopathic cerebral maladies—more partial, transient, and variable in the *verminous complaints*.

22. Dilatation of the pupils often takes place in the *latter* class, and even before the attack of illness, in which case there is no aversion to the light—no affection of the sight. In the early period of cerebral irritation, the eye cannot bear light—the pupils are often contracted—and the dilatation that succeeds is only the result of loss of sensibility in the retina. In these cases there will be perceived an oscillatory movement in the iris, when a lighted candle is brought near the eye, and which M. Odier of Geneva, considers as an indication of effusion into the ventricles.

23. Strabismus is a strong symptom of cerebral lesion, especially of compression—it is rarely observed in verminous diseases.

24. In children affected with worms there is generally seen a dark circle round the eyes—a symptom but seldom observed in cerebral affections. In these *last* the nostrils are dry—in *worm fever* they are moistened with mucous matters. In the *latter* there is often a puffy swelling of the upper lip, the same as is seen in scrofulous children. It is rarely the case in idiopathic cerebral fever.

25. The complexion in worm cases is pale and leaden—in cerebral affections it is very variable, sometimes pale, but more commonly flushed.

26. Rolling the head on the pillow is a sign of cerebral, rather than of worm affection.

27. The pulse, as was before observed, presents, in cerebral irritation, great inequality, as, first frequency, then slowness, and then again great quickness. These modifications are not distinguishable in verminous affections. In these, the pulse is generally small, unequal, and occasionally intermittent.

28. M. Cruvelheir has always observed the respiration unequal in hydrocephalic affections, a symptom which he consi-

ders as pathognomonic—but this phenomenon occurs often in other affections of children.

29. The temperature of the skin is elevated in cerebral fever, but in worm fever it is little above the natural level. In the *former* the heat of the head is much above that of the abdomen—while the reverse is the case in the *latter*. It is on this account that children with worm-fever always feel better after taking cold drink. The skin is also drier in cerebral, than in verminous affections.

30. The emaciation in cerebral fever is very rapid and general—in verminous disease, there is also marasmus, but it is not near so rapid. It is particularly observable in the extremities, while the abdomen preserves its size.

31. In cerebral fever, the urine is very scanty, red, and sedimentous. In worm-fever, the urine is sometimes clear and plentiful—more frequently troubled like whey, and letting fall a whitish sediment.

32. In verminous affections, there is much instability in the symptoms—thus coma, delirium, blindness, aphonia, &c. succeed each other with rapidity:—while, in cerebral fevers, we find a greater obstinacy—a more sustained march of the symptoms, which are regularly progressive.

The foregoing parallel or contrast, call it which we may, appears to be drawn from the observations of the best practical writers on the two diseases, and is well deserving of attention from the young practitioner. It must be remarked, however, that whatever be the original seat of the disease, when the head becomes affected, even sympathetically, we must attend carefully to that feature of the complaint. Nor does this part of the treatment interfere with that which is properly directed to the expulsion of worms, or the removal of bad secretions from the *primæ viæ*. These last very frequently determine cerebral irritation in certain constitutions, and lead to hydrocephalic effusion in the end.—*Ibid.*

Vomiting of Fat and Blood.—In the *Annali Univers.* for January, there is related the case of a man, aged 75, who had always enjoyed good health with the exception of an attack of jaundice. He was in the habit of fasting sometimes for a whole day or two, and then eating, in excess, the most indigestible substances. This went on for many years, without any apparent ill consequences; but the day of reckoning at length arrived. For two years past he had been assailed with periodical vomitings, every week or a fortnight, attended with complete

loss of appetite for some days; when the stomach would again become restored. One evening lately he was seized with a more severe attack than usual, after great imprudence in diet, and vomited most abundantly. When the paroxysm was apparently over, a new phenomenon took place, and Dr Pasquali was called in. The matters thrown up were no longer the ordinary contents and secretions of the stomach, but a mixture of pure blood and a kind of thick oil, or melted fat. This process went on to a prodigious extent, and our author calculated that the patient threw up, in the course of 24 hours, the enormous quantity of thirty pounds or pints of this mixture. The man was reduced to the brink of the grave, and life was scarcely perceptible, when the orgasm ceased. And now a surprising change was perceived in the patient's body. He had been rather embonpoint before the attack; but his skin was now hanging in folds, and the whole of the adipose substance seemed to have disappeared from the belly and every part of the body where it had previously abounded. The orgasm over, the poor man was nourished every hour with light liquid food, and life was thus preserved. In twenty days he was restored to health, but still with an immense loss of adipose substance.—*Ibid.*

Rupture of the Uterus in early Pregnancy. (Archives, 1825.)—Messrs. Moulin and Guibert presented to the Academy of Medicine, in the late autumn, a piece of morbid anatomy, of which we shall here give the history somewhat abbreviated.

Mad. Cayer, 26 years of age, had laid in of her first child, at full term, in the year 1821. This event was succeeded by two miscarriages, one at four, and the other at five months, in the years 1823 and 1825. Her health had not suffered from these accidents, and she again became pregnant in May, 1825. Nothing particular occurred until the 7th of August, when, having taken a very hot bath, and dined lightly, she repaired to an assembly, where she amused herself with dancing, of which she was passionately fond. In the midst of a waltz, she felt something crack in the lower part of the abdomen, and instantly fell down in a state of syncope. She was conveyed to bed, and the most alarming symptoms rapidly supervened. The abdomen swelled and became painful—the pulse faltered—the countenance sank—the body was covered with cold sweats—inexpressible anxiety and restlessness came on, with vomiting, &c. Messrs. Moulin and Guibert were quickly on the spot; and, on examination, no discharge from the vagina was discovered, nor any thing unusual about the uterus. One of the medical attendants came to the conclusion, that a rupture

of the *liver* had taken place. Twenty leeches were applied to the right hypochondrium, followed by fomentations, acidulated diluents, &c. At four o'clock in the morning, the medical gentlemen were again summoned, as the patient was said to be dying. More physicians were called in, and though all agreed that the poor lady was at the point of death, there was great discordance, as usual, in respect to the cause of the fatal catastrophe. The scalpel cleared up the mystery. There was nothing wrong in the head or chest. On laying open the abdomen, a quantity of pure and fluid blood flowed out. The liver and other abdominal organs were all sound. Attached to the uterus was seen a round mass of coagulated blood, in the centre of which was found a *fœtus* of about ten weeks old, encircled with its membranes. There was a rent in the fundus of the uterus, through which the *fœtus* had escaped into the abdominal cavity. Around this rupture the substance of the womb appeared rather softened, but not thinner than in any other part. There was no other morbid phenomenon worthy of record.

This is certainly a most rare, if not a unique case of rupture of the uterus:—For we do not recollect any instance of the kind on record at so early a period of pregnancy. But a suggestion was started by one of the gentlemen at the academy when the parts were examined there, that the case was probably one of those which Carus calls *demi-extra-uterine* pregnancies—that is, where the *fœtus* is developed in the parietes, instead of the cavity of the uterus, in the vicinity of the opening of a fallopian tube—a species of extra-uterine impregnation so accurately described by M. Breschet. Would the Cæsarean section at an early period of the rupture, have offered any chance of success, with or without transfusion of blood?—*Ibid.*

REVIEW.

ART. X.—*A Manual of Chemistry on the basis of Professor Brande's; containing the principal facts of the Science, arranged in the order in which they are discussed and illustrated in the Lectures at Harvard University, N.E. Compiled from the works of Brande, Henry, Berzelius, Thompson and others. Designed as a Text-Book, for the use of students and persons attending Lectures on Chemistry.* By JOHN W. WEBSTER, M.D. Lecturer on Chemistry in Harvard University. 8vo. pp. 603. Boston: Richardson & Lord. 1826.

NOTWITHSTANDING the many chemical works which have appeared within the past twenty years, we have been often led to think there is no one particularly well calculated for such students of the science as have gone through the more limited works with which the study is usually commenced. Between the 'Conversations on Chemistry' and similar elementary works, and the more elaborate works of Henry, Murray, and others, a chasm has existed which we have long been desirous of seeing filled. It is undoubtedly true, that students who have made themselves familiar with the volumes of Mrs Marcet, may proceed to the more elaborate works with advantage; but the transition is too sudden; and whoever intends to pursue a systematic course of reading in chemistry, will early feel the want of a work less extensive than those of the latter class, but more so than the former. The 'Manual' of Professor Brande, is, in many respects, such a work as is calculated to supply the connecting link in the chain, but is still deficient in experiments, in the description of the salts, and on several other points, while it contains much that is out of place in a work on chemistry, and which belongs to a distinct branch of science.

The edition of Mr Brande's work, which was published some years ago under the care of Dr Mac Neven, has some slight advantage over the English edition, but the general character of the work is retained, and the same objections apply to it.

The medical student, who is disposed to rest satisfied with a limited knowledge of chemistry, has lately had placed in his

hands an excellent volume, compiled by Dr Paris, which we think will be read also by others with advantage. Dr Paris's work, it is true, contains little that is new or original, being almost an abridgment of some parts of Henry, and an entire reprint of still more. The medical student can also have recourse to Dr Ure's dictionary, a work which should always be upon the table.

From the necessarily small portion of time which is devoted to the study of chemistry in our colleges and similar institutions, such a volume as that which Dr Webster has published was much wanted. It will fill up for those who can devote more time to the study, the chasm to which we have alluded, and lead with care and interest to the study of the more voluminous treatises and systems.

The chemistry of Dr Henry, which has been used in several of our colleges, is unquestionably one of the most valuable chemical works we profess. But from a single volume it has increased, through ten successive editions, to a system, extending, in the American edition, to no less than three volumes. It has of course gradually become an expensive work, a consideration of some importance to students, and comprises much that they cannot, in the short space of time appropriated to this study in our college, use with advantage.

In the work which we are noticing, Dr Webster appears to have compressed into one volume all the most essential parts of Brande and Henry. He has adopted Mr Brande's manual as the outline which was to be filled up; he has removed all those parts of it which are not strictly chemical; and has engrafted in their place, a large portion of the most practical and useful parts of Henry. He has not, however, confined himself to the mere labour of enlarging Mr Brande's work by additions from Henry; but has carefully examined all the best modern works on chemistry and scientific Journals, and has introduced every thing new and valuable in their contents into his own work, which he has thus made very complete in the view it affords of the present state of the science.

A defect in many chemical works is in practical illustrations and experiments; this appears to have been constantly kept in mind, in the arrangement of this volume. The experiments which are given are uncommonly numerous, and introduced with great care; and we do not hesitate to say, that the student who will take up this volume, and, while reading it, carefully repeat the various experiments, will close it fully prepared to prosecute the science in his laboratory, and to read the more extended systems with understanding and delight.

We cannot close this notice without remarking on what we consider another circumstance, tending, in no slight degree, to increase the value and usefulness of Dr Webster's volume; it is the great number of neatly executed engravings which it contains. In this and in every other respect, the convenience of the student appears to have been studiously kept in view, as is indicated by the very copious index, and the marginal notes.

ART. XI.—*The Lectures of Sir Astley Cooper, Bart. F.R.S. Surgeon to the King, &c. &c. on the Principles and Practice of Surgery; with Additional Notes and Cases.* By FREDERICK TYRELL, Esq. Surgeon to St Thomas's Hospital, and to the London Ophthalmic Infirmary. 2 vols. Boston: Wells & Lilly, pp. 263 and 343.

(Concluded from p. 323.)

INTO all the subjects treated in the Lectures of the second volume, we shall not pretend to enter, but confine ourselves to such as seem to us most interesting or important. The thirteenth Lecture, with which it begins, is upon Injuries of the Spine.

'Injuries of the spine produce effects of the same general character with those of the head, viz. concussion, extravasation—fracture—fracture with depression, suppuration and ulceration.' And the symptoms which ensue, will vary in degree and in extent according to the part of the spine which is injured, and the violence of the accident by which the injury is inflicted.

Of Fracture of the Spine without displacement, the following case is given:—

'A girl received a severe blow upon her neck; after which it was observed, that whenever she wanted to look at any object, either above or below her, she always supported her head with her hands, and then gradually and carefully elevated or depressed it, according as she wished, towards the object. After any sudden shock she used to run to a table, and placing her hands under her chin, rested them against the table until the agitation occasioned by the concussion had subsided. Twelve months after the accident the child died; and on examination after death Mr Cline found a transverse fracture of the atlas, but no displacement. When the head was depressed or elevated, the dentiform process of the second vertebra became displaced, carrying with it a portion of the atlas, occasioning pressure upon the spinal marrow, which was also produced by any violent agitation.' pp. 14, 15.

Fractures of the spine *with* displacement are known by the paralysis of all parts of the body below the seat of injury. Patients rarely recover; but the period at which life is destroyed varies according to circumstances. When the injury is of the lumbar or dorsal vertebræ, life may be continued for some time; when of the lower cervical, only for a few days; and when above the fourth cervical, death is immediate. It is well known that the proposition has been made and actually carried into execution, to cut down upon the spine, and, by sawing away the bone, remove the pressure from the spinal marrow. Sir Astley gives the following account of this operation:

' In the treatment of fractures of the spine, with displacement, no plan, hitherto adopted, has been productive of any permanent benefit.

' Mr Henry Cline, who was an excellent anatomist, and a very good surgeon, first attempted to afford relief by operation after this accident, as he thought that cases of this kind should be treated as those of fracture with depression of the skull; and he had made numerous experiments, the result of which gave him reason to suppose that such an operation might be successful. He cut down upon the spine, at the part where the displacement was evident, and having exposed the spinous process and arch of the injured vertebra, he sawed through the arch near to the transverse process with a small trephine of his own invention, and then raising the depressed portion of bone, he thus took off the pressure from the spinal marrow.'

' It is well known that union of bone has taken place after fracture with slight displacement of the vertebræ. Mr Brooks has a preparation shewing a union of this kind; and in the museum at the College of Surgeons is another portion of spine, presented by Mr Harold, of Cheshunt, in which union has been produced after an accident of this nature. There can be no fear then as to the restoration of the part, if the pressure on the spinal marrow could be removed.'

' In many cases of fracture with displacement of the spine, the spinal marrow is either partially or completely torn through. In such instances little good could result from an operation; but in others the spinal marrow is apparently but little injured; and in such cases it was, that Mr Cline thought there might be hope from an operation. Mr Tyrrell has performed the operation since Mr Cline, but both cases terminated fatally:—whether future trials will be more successful, it is difficult to say; we cannot speak decidedly on the subject, as the first operations have been unsuccessful. The proposal is laudable, and the operation is not severe, nor does it increase the danger of the patient; time and experiment can only determine its value. If we could save one life in a hundred by it, we should deserve well of mankind; and if any good

does ultimately result from it, Mr Henry Cline has the merit of proposing it.—*Palmam qui meruit ferat.* pp. 15—21.

Lecture XIV. is on Aneurism. Aneurisms burst externally by means of a small eschar, but the orifice so formed is seldom so large as to cause immediate death. Gradually, however, it increases by the sloughing process. Hemorrhages repeatedly take place, and the patient dies exhausted. Internal aneurisms more frequently cause sudden death; and this they do, in various ways, according to their situation, and the circumstances under which they burst.

Several circumstances require great caution and deliberation in the treatment of aneurisms. There is in some persons a constitutional disposition to their formation, so that we are told of one individual who had seven. He was operated upon for one in the thigh, but died soon after by the bursting of another at the bifurcation of the aorta. On dissection, an aneurism was found in each ham, one at the bifurcation of the aorta, one at the origin of the arteria profunda, one in the middle of the thigh, and two between the popliteal aneurism and the femoral. Mr Tyrrell relates another case of seven. Wherever therefore an aneurism exists, we have some reason for suspecting that there are others; these may be internal, and by bursting cause sudden death at the time of, or soon after, an operation. Sir Astley had begun the operation for a popliteal aneurism, when suddenly the patient stretched himself out, his urine flowed from him, and he soon died. An aneurism of the aorta had burst into the pericardium. Mr Cline was about to operate upon a person with popliteal aneurism, but was induced to defer it on account of the patient's complaining of pain in his abdomen. He died suddenly in a few days; and on examination, an aneurism was found between the two emulgent arteries, which had burst into the abdomen. Accidents of this kind show the necessity of caution, particularly to young surgeons in operating for aneurism, since, had either of these deaths occurred *immediately* after the operation, it might have injured very much the reputation of the surgeon, and that without reason.

Another circumstance requiring caution is the treatment of aneurisms, by operation, about the neck, since when they really are seated upon the curvature of the aorta, they may appear to be situated in the carotid or the subclavian artery.

‘ Aneurisms beginning from the curvature of the aorta, sometimes rise to the middle of the neck, and assume the appearance of carotid aneurism. A specimen was given me by Mr Dyson, surgeon, of Fore Street, who sent to me to say, that he had a carotid aneurism

under his care, which he wished me to examine. I found a tumour in the side of the neck, but thought I could trace a small swelling from it to the sternum, and, therefore, refused to operate. The patient lived seven months, and Mr Dyson gave me the aneurism which sprung from the curvature of the aorta: a large bag was formed in the neck, communicating by a narrow canal with the curvature of the aorta.

‘Mr Allan Burns, formerly a most excellent surgeon and anatoomist at Glasgow, wrote to me respecting a pulsating tumour above the clavicle, upon which it was proposed to perform the operation for aneurism. In my answer, I said, Take care that the case which you have described is not an aneurism of the aorta. The operation was not performed; the patient died of the disease, which proved, upon dissection, to be an aneurism of the aorta.’ p. 31.

Aneurisms situated in other parts of the body, may, when they become very extensive, exhibit themselves in places so remote from their origin as to lead to mistake, except upon very careful examination. Thus, an aneurism of the abdominal aorta in its posterior part, presses upon the spine, produces absorption of the vertebræ, and finally makes its appearance between the last rib and spine of the ilium in the loins. It sometimes projects into both loins; and as the tumour in this case does not pulsate, it somewhat resembles lumbar abscess, and has been taken for it; a circumstance witnessed by Mr Cooper.

‘A surgeon, in a hasty way, said, “This is a lumbar abscess,” and plunged a lancet into it, and then with something of a similar exclamation, he said, “God bless me! this is blood;” a piece of adhesive plaster was applied covered by a roller, and the wound healed, and the patient afterwards died of the bursting of the aneurism internally.’ p. 33.

An aneurism also, seated within the pelvis, has been known to pass through the ischiatic notch, and produce a large pulsating tumour under the gluteus maximus.

Aneurism occurs chiefly in persons between thirty and fifty, and more among men than women. Mr Cooper has seen only eight cases of popliteal aneurism in the female, though an immense number in the male.

The following is his account of the formation of aneurism.

‘The first circumstance which occurs in an artery which is about to produce an aneurismal swelling is, that it becomes opaque and slightly inflamed; a small yellow spot appears in the part where the aneurism is afterwards formed, and there is a slight efflorescence surrounding it; a process of absorption next thins the coat of the artery, so that its texture becomes like a fine web of cellular tissue: at this time nature sets up a process of defence, which is

beautifully exemplified in a preparation in St Thomas's Museum; it is an incipient aneurism of the aorta; the coat of the artery has been absorbed, and opposite to the parts absorbed you observe a layer of adhesive matter, by which a defence is produced, and the progress of the disease for a time resisted; a covering is formed by the adhesive inflammation, which strengthens the artery and prevents the immediate escape of blood. As the coat of the artery is absorbed, the part in the vicinity of the artery becomes united to its surface by the adhesive process: thus, if it be an aneurism of the ascending aorta, the pleura is united with it, and forms a portion of the aneurismal bag; the pleura becomes absorbed and the lung forms a part of the sac, the lung and pleura costalis are absorbed in their turn, and the intercostal muscles and cartilages of the ribs form a part of the sac; these removed by absorption, the pectoral muscle becomes the sac, and when this is absorbed, the skin, which is the only covering for the blood, inflames, dies, and sloughs in the way I have already described, and the person loses his life from haemorrhage.' p. 38.

The diagnosis of aneurism generally does not present any peculiar difficulty. In a doubtful case of aneurism of the groin, Mr Brodie was able to form a decision upon applying the stethoscope. When a tumour is situated upon an artery, so as apparently to pulsate, it may be distinguished from aneurism by elevating the swelling from the artery which puts a stop to the pulsation.

'Pulsating tumours in the neck are common, and may be distinguished from aneurism, by desiring the patient to make an effort to swallow. Carotid aneurisms generally do not move with the larynx or trachea: other pulsating tumours in the neck are, for the most part, connected with the thyroid gland, and obey the motions of the air tube in swallowing.' p. 41.

Aneurism sometimes gets well spontaneously, but medical treatment is of little avail. Two measures only, according to Sir Astley, are useful; bleeding, and the carbonate of soda, which, with entire rest, check the increase of the swelling. The soda, however, produces petechiæ; and the irritability is often so increased by the measures used, that the quickness of the pulse does as much hurt as the force of the circulation in other cases.

Lecture XV. details the method of operating under various circumstances. This lecture, although very valuable to the operator, presents nothing which we wish to record particularly, except the account of the aneurismal varix. When the brachial artery is wounded in bleeding, through the vein, adhesion is sometimes produced between the artery and vein; the

blood flows freely from one to the other, and causes a swelling of the vein.

' The swelling of the vein acquires the size of a pigeon's egg, and then it usually ceases to increase. There is a pulsation in the swelling, with a thrilling sensation, and a hissing noise. If the artery be compressed above, the swelling becomes flaccid and can be emptied of its blood; but if the arm be compressed below the swelling, the pulsation continues, and the size of the swelling remains unaltered. The brachial artery, above the varix, becomes enlarged, owing to the greater quantity of blood which it conveys.' p. 68.

In recent cases, the following treatment is recommended :

' A young lady was brought to my house by the surgeon who had the misfortune to prick the brachial artery in bleeding. The wound had healed, but an aneurismal varix followed, of the size of a pigeon's egg, attended with strong pulsation, a thrill, and a hissing noise. I ordered it to be compressed with a dossil of lint and a roller; but it did not succeed in subduing it. I then directed that a circie of iron should be put round the arm, with a pad, which could be screwed down on the brachial artery, in the middle of the arm, between the shoulder and elbow-joint. This she bore without much suffering, and gradually the swelling at the elbow subsided, and pulsation in the brachial artery and in the tumour could be no longer perceived.' pp. 68, 69.

Lectures XVI. and XVII. are on Hydrocele, which we do not notice.

XVIII. is on Diseases of the Testicle. The hydatid testis is often mistaken for hydrocele; and Mr Cooper admits that there is great difficulty in distinguishing them from each other. There is less extensive fluctuation in this case; a heavier swelling, rounded upon the fore part, and flattened upon the sides; no transparency; vessels of the cord varicose; the swelling divided into two, testis and epididymis. Testis not felt as in hydrocele. The testis in this case is to be extirpated, and there is no danger of a return of the disease.

The testicle is subject to two diseases of a malignant character—fungus and scirrhus.

The symptoms, progress, and morbid appearances of fungus do not differ from those of this disease when seated in other parts. It is constitutional, and is found upon dissection pervading various parts of the body, as well as the testicle. The diagnosis is not always easy. The want of transparency, the pain, the shape, the want of proper fluctuation, distinguish it from hydrocele. From the hydatid testicle, it is more diffi-

cult to distinguish it. Pain in the part occurring at distinct intervals, a sallow complexion and deficient general health, are more peculiar to fungus. Sir Astley recommends introducing a lancet in doubtful cases; a measure which can do no hurt, and is generally sufficient to determine the matter. This disease admits of no remedy but extirpation, and even the effect of this is very uncertain. For, since it has a constitutional origin, and is maintained by constitutional causes, the simple removal of the organ itself gives but temporary relief, the disease seizing upon some other part. Sometimes, however, the general health may be so much improved as to prevent this occurrence, and the cure is permanent.

It is necessary that the operation should be performed early; and Mr Cooper advises it as soon as he has tried the treatment proper for a simple chronic inflammation of the organ; (see Lect. XIX.) and as soon as the wound has healed, or even sooner, if it heals slowly, he recommends the employment of constitutional remedies to improve the general health, and lessen the disposition to a return of the disease.

Of the true scirrhus of the testicle, Sir Astley remarks that it is extremely rare, the medullary or fungous disease being far more common.

'Indeed,' he says, 'for a length of time I doubted if the testicle was subject to the disease to which the breast is so prone; viz. the scirrhus, which, in its progress, produces cancer.'

'I have seen few examples of that hard swelling in the testis which resembles scirrhus, and I have never seen but one instance in which that hardened testis ulcerated and destroyed the part, resembling in its progress the cancerous ulcer of the breast. Old persons are most liable to this disease; in the few examples in which I thought the disease might be scirrhus, the age has been between fifty and seventy years.' p. 107.

Lecture XIX. Sir Astley describes what he calls simple chronic enlargement of the testis, as a very frequent affection, and as having been frequently mistaken for a malignant disease. It seems to consist in a chronic inflammation of the testicle, ending in suppuration and ulceration. It yields if the following directions be persevered in.

'1st. Observe the recumbent posture for a month. It is not sitting with your legs raised which will suffice, but to be absolutely recumbent is necessary.'

'2d. Take two or three grains of submurias hydrargyri and a grain of opium night and morning, until the mouth be sore; and then such a quantity as shall preserve that tenderness of the gums for a month.'

‘3d. Apply leeches twice in the week, or let the patient stand before his surgeon and have the veins of the scrotum opened by a lancet.

‘4th. Apply upon the scrotum equal parts of camphorated mixture and vinegar.

‘5th. About every fourth morning give an active dose of infusion of senna, with sulphate of magnesia and tincture of senna.

In about three weeks, in this way, you will reduce the size of the part; and then, if the urethra has been diseased and the complaint be sympathetic, you may introduce daily a silver sound, to remove any obstruction in the urethra, whilst the patient is still recumbent and living low; when the disease will, at the end of the month, or of five weeks, be cured.’ p. 113.

For this disease the Testicle is often very unnecessarily removed.

Another peculiar affection of this organ is described under the name of the Irritable testis.

‘This disease is known by the following symptoms:—the patient has an uneasy sensation in a part of the testicle; it is tender to pressure, tender also in exercise, and unusually sensitive at all times. The sensibility of the part becomes occasionally so much increased, that the slightest touch is exquisitely painful; pain is felt in the back and groin; the motion of the part and slight pressure of the clothes in walking produce so much pain as to almost forbid exercise, and the patient finds no comfort but by reposing continually upon a sofa, or by remaining in bed. The testicle is little swollen, and the whole of the part is not equally tender. The spermatic cord sometimes partakes of this exquisite sensibility. If the part be not supported, the pain is scarcely tolerable. The patient is obliged to place himself in bed upon the opposite side to the disease, or he does not rest. He has pain in the thigh on the same side,—the testis appears full and loaded. Motion in most cases produces not only pain at the time, but additional uneasiness afterwards. The stomach is rendered extremely irritable, and vomiting is sometimes produced.

‘The disease frequently continues many weeks, sometimes exists for months, and with others endures for years. When the patient thinks himself much better, a little more exercise than usual renews all the symptoms.

‘The complaint produces, in some instances, so much distress of mind, so high a degree of bodily suffering, and so completely incapacitates the sufferer from amusement, and the pursuit of a profession or business, that he seeks relief from an operation which I was thrice compelled by the patients to perform, rather than recommended upon my own judgment.’ pp. 115, 116.

‘The remedies I have seen most useful have been small doses of the oxmurias hydrargyri with the compound decoction of sarsaparilla, given twice per diem, and continued for a length of time. The

application of a belladonna plaster to the part, and opening a blister at the groin, and dressing it with *ung: cetacei et opii*. A sea voyage to a warm climate, I have known improve the patient, from the rest and change of constitution it has produced. It will be right to try arsenic, which has considerable power over *tic dououreux*; to give Quinine, as bark relieves it; also to try steel, as it has been recommended by Mr Hutchinson, of Southall, but at the same time to deplete the part by leeches, and lessen the nervous irritation by the application of a solution of nitrate of potash and muriate of ammonia, in a bladder. Bougies do not relieve it; but the *ung: lyttæ*, used to produce a slight discharge from the beginning of the urethra, I have known of service.' p. 119.

Lecture XX is on diseases of the breast. These diseases, it is remarked, 'have been too much considered as being of a malignant nature; and females, who have had the misfortune to have tumours in their bosoms, have been often very unnecessarily submitted to an operation, under the idea of the complaint being cancerous.' The distinctions made by our author between the different affections of this organ, will be found of very great importance to the general practitioner, as these affections are of a kind which he is peculiarly liable to be called upon to treat; and by a careful investigation of their character, it will be frequently in his power, by distinguishing between the malignant and the more mild complaints, to afford great relief not only to the bodily sufferings, but to the anxieties and apprehensions of his patients.

The first species of tumour is the hydatid or encysted. This begins with a swelling, not painful, and not distinct and circumscribed like *scirrhus*, but incorporating itself with the surrounding parts of the breast. There is no discolouration of the skin, nor tenderness on pressure; and the general health is unaltered. At first it is solid, but gradually it divides into a solid and fluid substance. Such tumours sometimes grow to an enormous size. Mr Cooper removed one which weighed thirteen pounds. When the fluid, which forms in this disease, is contained in a single cyst, it is sufficient to discharge the fluid by a puncture: adhesive inflammation will obliterate the cyst and cure the disease;—but where the cysts are several, it becomes necessary to extirpate them. The operation, even when the tumour is very large, is attended with little danger; and, where the disease is entirely removed, it never returns. It may be considered as a purely local disease.

The second species is the *Scirrhou*s Tuberclé. With the general appearance, course and termination of this disease, most practitioners are unfortunately too familiar. We shall only note such circumstances as are distinctive.

It is extremely hard, very distinct and circumscribed to the feeling, so that the surgeon can trace its limits through the integuments. It is painful, at intervals of ten days or a fortnight, and more particularly for a few days preceding menstruation. The pain is very severe, like a stab or a pricking, or a tearing as if the breast were tearing off, or a burning. Sometimes, however, the pain is more obscure, like the aching of rheumatism. The swelling seldom exceeds two or three inches in diameter; but sometimes a scirrhouous inflammation seizes the whole substance of the breast, and even extends through the cellular tissue to the other breast.

The swelling draws the lactiferous tubes out of their course, and consequently the nipple is drawn in, and often inflamed and ulcerated. The skin becomes puckered. The cellular membrane becomes inflamed and hardened, and little tubercles form in the absorbent vessels under the integuments. The disease extends also to the axillary and clavicular glands. The ulceration which follows is equally remarkable in its character, but in this stage the nature of the affection admits of no doubt, and it cannot be confounded with any other tumour.

After describing the ordinary appearances of the breast upon dissection, Mr Cooper describes the appearances found in other parts of the body.

‘ If the swelling adheres to the pectoral muscle, scirrhouous matter is deposited in the direction of its fibres, and it is converted into a hard and white substance; the glands in the axilla are changed in their internal appearance from the deposit of a scirrhouous secretion resembling that in the breast, but more vascular and more quickly ulcerating, and then they become spongy. The glands above the clavicle are in the same state; and those on the left side, when enlarged, press upon the end of the thoracic duct, and disturb its functions, producing excessive pain for some time after taking food.

‘ The glands behind the cartilage of the ribs, when the disease is placed upon the sternal side of the nipple, are generally diseased. It often happens that the axillary glands upon the opposite side to the diseased breast are also enlarged and hardened.

‘ When the chest is opened, the lung on the diseased side, and sometimes on both sides, is inflamed, and partially adheres to the pleura costalis. Serum is found in the cavity of the pleura, on the diseased side, from which I have known death produced in a few days, after an operation of removing a scirrhouous tubercle. When the finger is passed over the internal surface of the pleura costalis, little scirrhouous tubercles are felt upon it, and the pleura on the surface of the lungs has similar, but larger, scirrhouous swellings.

‘ The liver has frequently scirrhouous tubercles on it, more especially when the disease in the breast is seated on the right side.

‘ The uterus is rarely free from disease ; one, or sometimes several scirrhous tubercles are formed in it, and this produces the pain in the loins, of which the patient so frequently complains.

‘ I have also seen the ovaria enlarged, hardened and tuberculated.

‘ The bones have frequently scirrhous deposits on the cancellated structure.

‘ We have the sternum, taken from Mrs Edge, preserved in the collection at St Thomas's with scirrhous secretion in it. We have the thigh bone of the same lady, which broke merely in her rising from bed. We have a fractured thigh bone in the collection, taken from another patient, which broke by her turning in bed.

‘ We have also two most curious specimens of diseased spine, in which much of the bone has become absorbed, and scirrhous tubercles deposited in the spaces left by absorption.’ pp. 139, 140.

Scirrhus seldom appears under thirty years of age, but occurs at all ages afterwards. It is most frequent about fifty, and seems to have some connexion with the cessation of menstruation. It is most frequent in unmarried women,—or in women who, although married, have not had children. It is also liable to occur in persons of the same family ; thus several sisters will be affected by it. It is often produced by anxiety, despondency and mental depression.

No measures but those of a palliative nature are recommended, except the removal of the disease by the knife. It will be interesting to quote so distinguished a surgeon’s opinion with regard to this operation.

‘ Before the patient be submitted to the operation of having the disease in the breast removed, she will naturally inquire what danger it produces to life, and what prospect it affords of preventing a return. To the first of these the surgeon may confidently answer, that the danger of the operation is very slight ; for, in the immense number of cases in which I have performed it, I have lost but five patients : two of erysipelatous fever and inflammation ; one from hydrothorax, which was found upon dissection to be connected with the exterior of the disease into the chest, affecting the lungs and pleura ; one, a woman of great bulk, in whom the breast was very large ; and one from great age.

‘ To the second question, the reply is made with more difficulty. A large proportion of cases return ; but fewer than formerly, if the patient, immediately after recovering from the operation, undergoes an alterative course of medicine.

‘ It may be truly said, in the present state of our knowledge, the operation furnishes the only hope of preventing the disease from proving destructive, with the exception of very advanced age, in which it makes little inroad on the constitution, and little progress in the parts.

'Although the patient may not ultimately survive; yet it may be said, that in cases in which the disease does return, the patient is generally preserved from a most painful and offensive state by the operation preventing ulceration.'

'On these accounts, I recommend the patient to submit to it. Hope is revived, and the only chance for life is given.' pp. 150, 151.

The third kind of tumour to which the breast is subject, is the Fungous or Medullary tubercle. This differs in several particulars from the scirrhous. It occurs at all periods of life, though particularly after thirty. It is not so hard as scirrhous; as it advances, it becomes still softer, and yields to the finger. The skin, which is at first healthy, becomes livid,—and a fluid forms in a cyst, which finally ulcerates, and the fluid is discharged. It has a peculiar appearance, like bile. It is composed of serum with red particles, leaves a yellowish red stain upon paper, and readily coagulates as serum does by exposure to heat. After the cyst has opened, a fungus sprouts forth, which occasionally bleeds profusely, and discharges a large quantity of matter of a sickening odour. The profuse discharge, the repeated losses of blood, and the production of similar disease in other parts of the body, lead to the destruction of life. This disease proves fatal much more speedily than scirrhous,—the subjects generally dying within a few months. This tumour is less painful than the scirrhous, the glands in its vicinity are not affected, the nipple is not drawn in, nor the skin pucker'd. The only remedy for this complaint is an operation, and the result of this is uncertain, since it has unquestionably a constitutional origin.

The next species is the simple chronic tumour. It attacks principally the young and healthy, and before the age of thirty, and is neither malignant nor dangerous. It is distinguished from the other tumours, by the age at which it occurs; by the want of pain; by the appearance of general health which accompanies it; by its slow growth; by its extreme mobility; by its superficial situation, appearing at first as if it were on the outside of the breast, and then gradually becoming lost in its substance. It has not the hardness of the scirrhous tubercle; nor is it accompanied by that loss of health which marks the fungoid disease. Sometimes it acquires a very large size; and one case is mentioned in which a tumour of a large size became ulcerated and destroyed life.

As it respects treatment, little is effected by medicine, and the disease rarely disappears. If it increases very much in size, in spite of an alterative treatment, there is but little risk in its removal by an operation.

Next is the Adipose Tumour. We quote all that is said of this species.

'In the breast a fatty swelling is sometimes formed. A Mrs Smith, of Great Yarmouth, applied to me, with an enormous tumour in her bosom. As her general health was good, I advised its removal. It weighed fourteen pounds and ten ounces: the gland of the breast was placed before it. The preparation is in the Museum at St Thomas's Hospital, and she recovered very quickly. The incision for its removal was thirty-two inches in circumference.' p. 161.

The Irritable Tumour occurs from the age of fifteen to twenty.

'A lobe of the breast is slightly swollen; it is extremely tender to the touch, and, if handled, the pain sometimes continues for several hours. The uneasiness is not seated in the swelling only, but extends to the shoulder and axilla, down the arm to the elbow, and frequently to the wrist and fingers. It is very much increased prior to menstruation, is somewhat relieved during the period, and decreases after its cessation. The pain is sometimes so severe as to destroy rest; and even the weight of the breast in bed is sometimes almost intolerably painful.' p. 162.

This disease has no malignant tendency. It never requires removal by an operation. It is often accompanied by amenorrhea or by some catamenial difficulty.

It is to be treated locally by the application of belladonna, opium, and extract of conium,—or of oiled silk, soap cerate or sur, to promote perspiration. The constitutional treatment should be directed with a view to the state of the uterine secretion. The best medicines are chalybeates—rhubarb, soda and columbo—conium and rhubarb.

The Ossific Tumour is very painful and hard, and is composed partly of cartilage and partly of bone. It is of rare occurrence.

The Lacteal Tumour is caused by the obstruction of one of the lactiferous tubes near the nipple. A fluctuating swelling ensues, painful from distension, but not discoloured. It is to be opened and the puncture left open, in order that the contents of the tumour, which are wholly milk, may continue to be evacuated.

The breasts sometimes grow large and pendulous, so as to hang down upon the abdomen.

'Miss L. aged seventeen years, of a light complexion and delicate constitution, who is naturally costive, has a remarkable enlargement of her breast. The left is twenty inches from its junction with the chest above to its lower part, and its circumference measures twenty-three inches. The nipple is flattened, the areola excessively expanded. The breast feels as if every lobe of the mammary gland was increased to several times its usual magnitude.' p. 165.

The treatment consists in supporting the breast by a suspensory bandage.

Milk abscess is to be treated like abscess in other parts:—

‘In general,’ says Mr Cooper, ‘I leave them to break spontaneously; but there are two exceptions to this.

‘First, When the constitution and patient are suffering severely and the abscess is slow to break, it is right to assist nature with the lancet.

‘And, secondly, when the abscess forms at the back of the breast very deeply, the aid of an artificial opening is required.

‘When they ulcerate, sinuses, difficult to heal, are sometimes produced; and the best treatment is to inject them with a solution of sulphate of zinc, or a dilute sulphuric acid, and to apply it constantly over the breast by linen.’ pp. 165, 166.

The remaining lectures are occupied in the consideration of Urinary Calculi and Lithotomy, Calculi in the Prostrate Gland, Retention of Urine, Fistula in Ano, Polypus of the Nose, Paracentesis Abdominis, Hare-lip and amputation,—making up in the whole, thirty lectures. These we pass over, as being principally connected with operative surgery.

Our principal object in this analysis has been to give so much of an account of the work as will be sufficient evidence of its great value as a guide to the ordinary and daily practice of surgeons; but not with any expectation or intention that it will serve in any degree as a substitute for the book itself. Indeed it appears to us, that the medical man who can profess, within the compass of a medical journal, and in the shape of a review, to give such an account of these volumes as will supersede the necessity of reading and studying them *in propria persona*, must either have a very imperfect idea of their value and importance, or be operated upon by a species of influence foreign to the proper objects of a scientific journal. No physician and no surgeon, we are ready to say, can adequately possess himself of the information contained in these lectures, without recourse to the work itself; and not only so, he cannot do it without a careful study of it. It is not a book which it will answer for him to read and then lay away upon the shelf of his library. It should lie upon his table; and there are few days in the professional life of a young man in which he may not derive instruction and support in the management of the cases which fall into his hands, from the advice of Sir Astley Cooper.

SELECTIONS.

Extracts from 'Lectures and Observations on Medicine.' By the late MATTHEW BAILLIE, M.D.

(Concluded from p. 332.)

Of Inflammation of the Bowels.

OF this very formidable disease I have very little to observe. Where the symptoms had been fully formed, the greater number of cases which I have seen have terminated fatally. One case, however, in which the vomiting was of sterco-raceous matter, recovered. The chief remedy in this very dangerous disease is bleeding largely, both from the system and topically by leeches. It is very desirable that the inflammation should be subdued, or at least be much lessened, before any active purgative be administered. A purgative during the violence of the inflammation will rarely produce any evacuation, and may even do some injury, by stimulating a part still highly inflamed. Fomentations have been very commonly applied to the belly, and they give some temporary relief. I am inclined to think that cold applications may be useful in assisting to subdue the inflammation; but this I have not hitherto tried. The tobacco glyster, and cold water thrown upon the lower limbs, have in some cases excited the bowels to action, when very powerful purgatives had failed.

Of Dysentery.—In this disease, opiate and astringent medicines have sometimes appeared to me to be administered too early. Mild purgative medicines (of which I think castor-oil, upon the whole, the best,) should be administered till the alvine evacuations have become free from mucus and blood, and have recovered in a considerable degree the appearance of a natural fluid motion. Astringent medicines, with opium, may then be directed with much advantage. As there is always an inflammatory condition of the bowels in this disease, leeches may be applied to the seat of the sigmoid flexure of the colon, and the upper extremity of the rectum, with a considerable chance of benefit.

Of some Affections of the Liver.

There may be, and often is, a deficiency in the quantity of bile mixed with the alvine evacuations, without any disease in

the structure of the liver. The fæces are more or less pale; but there is no hardness nor fulness in the region of the liver. Every thing there, upon the most attentive examination, is discovered to be soft and perfectly natural to the feeling. Mild purgative medicines, with small doses of the pilula hydrargyri, are commonly very useful in such cases. Four or five grains of the pilula hydrargyri should be given every night for some time, and the purgative every morning, or every other morning. The mercurial medicine should not be carried so far as to make any impression upon the constitution, if this can be avoided: it is only intended to stimulate the ducts of the liver. The best purgative medicine, upon the whole, is the sulphate of magnesia in moderate doses, so as to produce two or three evacuations daily. When the alvine discharges have for some little time resumed their natural colour, the pilula hydrargyri should be given up.

Sometimes the bile discharged from the liver is of a dark colour, and the motions become darker than usual. The intensity of the colour differs very much in different individuals, and occasionally it is nearly as black as ink. The liver at the same time may be, and commonly is, quite sound in its structure. The treatment should in this case be in a great measure similar to that in the former, but a little more active. Small doses of calomel may be used instead of the pilula hydrargyri, and the purgative medicines may be a little more powerful. When the colour of the motions has for a short time (eight or ten days) become natural, the calomel may be given up; but the purgative medicines may be continued longer, at somewhat greater intervals,—as, for instance, every third day. Where the motions are very green in their colour, magnesia or some alkali may be mixed with the purgatives. In the above cases the Cheltenham and Leamington waters have been often very useful; but I think that many practitioners of the present day have erred in administering mercury too long, and in too liberal doses. When mercury is carried beyond the point that is necessary, it often injures the constitution by weakening it, and by rendering the nervous system very irritable.

There is sometimes a greater fulness, and greater sense of resistance, over the whole region of the liver than natural, with more or less of tenderness upon pressure. This arises from some chronic inflammation of the substance of the liver. In such a case, the repeated application of leeches to the seat of the liver, and the occasional application of a blister, are often of the greatest use. A mild course of mercury should be recommended, so as in some measure to affect the constitution; and this should be administered both externally and internally.

It should not, however, be carried beyond the necessity. Long and repeated salivations will seldom be required, and often have done much and permanent injury to the constitution. When the liver has become soft, has lost its tenderness, and resumed its natural size, the mercury may be given up. If the liver shall not have returned altogether to its natural state, and the constitution appears to be suffering from the course of mercury, a seton may be inserted under the skin in the region of the liver, and the mercury may be given up or suspended. In some cases I have found a fulness of the liver, which had eluded the effect of mercury, to be removed by a seton. The administration of purgatives is of great advantage in all such cases, and the Cheltenham waters are often highly beneficial.

Of Abscess in the Liver.—Inflammation of the liver will occasionally terminate by forming an abscess. The abscess will in time break externally, or it will communicate with the lungs, with the stomach, or with both of these viscera. When the abscess breaks externally, the part gradually heals, unless there be something very unfavourable in the constitution; and the patient recovers entirely. When the abscess communicates with the lungs, the matter is brought up by coughing, and the patient, if prudent in the management of himself, and possessed of a tolerably good constitution, will sometimes at last entirely recover. When the abscess communicates with the stomach, the matter is sometimes discharged by vomiting, and sometimes by the bowels. In this case, too, the patient will not unfrequently recover; and the same observation may be extended to an abscess of the liver which communicates both with the stomach and the lungs, although the circumstances are more unfavourable in this than in the other two cases. In these various cases little benefit is produced by medicine, but great injury may be done by imprudent or unskilful management. The bowels should be always kept free from costiveness: if there be any considerable feverishness, it may be lessened by saline draughts; or, if the constitution be weak, it may be strengthened by the prudent use of tonic medicines. The diet should be light and nourishing, and in general wine should be avoided. The exercise, if the weather be favourable, should be gentle; but it should not be taken at all if the weather be ungenial, or if it be attended with pain or much fatigue. A stimulating diet, too much or too violent exercise, and exposure to a cold atmosphere, may do much mischief, or even lead on to a fatal event.

Of Tubercles in the Liver.—Tubercles of different kinds are formed not unfrequently in the liver, at a middle or more ad-

vanced age. They are often connected with an intemperate mode of living, but they will sometimes occur in persons who have passed an uniformly temperate life. They are frequently the cause of ascites, but sometimes they do not produce this effect. No medicines, as far as I have seen, are attended with any permanent benefit in this state of disease. By temperate living, by gentle exercise, and by the bowels being kept rather open, patients will not unfrequently live for some years with such complaints; but I do not recollect any instance of a patient actually recovering from them.

Of Hydatids in the Liver.—I have known only two instances of this disease in the living body. The one was in an old lady, who had been subject from time to time, for many years, to symptoms very much resembling those of gallstones. At length, after a more severe attack than usual, the constitution gradually sunk, and she died. Cysts containing hydatids were discovered upon examination of the body after death.

The other case was that of a young lady, who had suffered occasionally a good deal of pain in the region of the liver, and at length passed some hydatids by stool. She for the time recovered, but what became of her afterwards I have never learned. It is obvious that the formation of hydatids in the liver, even when the existence of this disease can be perfectly ascertained in the living body, can receive no essential benefit from medicine. If inflammation should take place in the progress of this disease, it may be removed or lessened by taking away blood from the arm, or topically; and if at any time violent pain should occur, it may be mitigated by opium and the warm bath. The bowels should be kept rather open; and there will always be some advantage in patients affected with this disease living temperately. Patients may live many years with this complaint; but, if it be gradually making progress, even though slowly, it must, in almost every instance, have ultimately a fatal termination.

Of Gallstones.—The formation of gallstones in the ducts of the liver or in the gall-bladder, is not a rare disease, and I have known many instances of it. The paroxysms of this complaint are generally attended with exquisite pain; but I have known a few cases where the pain has been moderate. Some cases I have likewise known where patients have been subject to symptoms of indigestion for many months, without paleness of the stools, yellowness of the skin, or any other symptoms which denote the existence of gallstones; yet this condition of the stomach has ultimately led on to the symptoms of gallstones being formed in the most distinct manner. It is obvious that

no solvent can be successfully applied to a gallstone within the living body. While the symptoms of gallstone exist, it must either be in some duct of the liver or in the cystic duct, or in the ductus communis choledochus. But a solvent introduced into the stomach cannot come in contact with a gallstone in any of these situations. As soon as a gallstone drops into the duodenum, where a solvent might reach it, all symptoms belonging to gallstones immediately cease; and for the time the patient becomes quite well. In the treatment of gallstones, therefore, the symptoms can only be mitigated by medicine. If any inflammatory symptoms have been produced, which is sometimes the case, they can be removed or lessened by general and topical bleeding. The exquisite pain which is commonly felt during a paroxysm of gallstones, can be generally mitigated by large doses of opium, by fomentations, and by the warm bath. Purgative medicines should be given, of sufficient power to counteract the effects of the opium. Mercury appears to me to have no power over a pure case of gall stones, unmixed with any fulness or hardness of the liver; and the Cheltenham or Leamington waters are of much less advantage than in the more ordinary cases, where the functions of the liver are merely deranged. No particular mode of life will protect a patient against the recurrence of gallstones; but there is always some advantage in such persons living temperately, and keeping their bowels free from costiveness.

Of some Diseases of the Pancreas.

The pancreas is, upon the whole, less liable to disease than any other important gland in the body. I do not recollect that, in private practice, I have met with one case in which there was satisfactory evidence of the pancreas being diseased; and I have only known of a solitary example of it during the thirteen years in which I was a physician of St George's Hospital. This case was under the care of another physician,* and the pancreas was not known to be diseased till the patient's body was examined after death. The pain in the epigastric region, sickness, uneasiness or pain in the loins, which belong to inflammation and enlargement of the pancreas, belong also to other diseases, and therefore do not particularly indicate a disease in this important viscus. Were the enlargement so great that it could be ascertained by an attentive examination of the living body, no difficulty would remain in ascertain-

* Dr Heberden, jun.

ing the disease. This, however, will very seldom happen; for I have not found a single instance, in all the dead bodies which I have examined, of the pancreas being so large that it could have been ascertained by the most careful examination in the living body. If the pancreas were to be much increased in size, and the patient much emaciated, so as to ascertain this disease while the patient was alive, it would probably be in general too late to receive any substantial benefit from medicine.

Calculi formed in the ducts of the pancreas, constitute a still rarer disease than the inflammation or enlargement of this gland. I have not myself met with any instance of it in the living body, nor do I remember to have heard any physician say that he has seen this disease. While the calculi remain within the ducts of the pancreas, it is evident that no solvent could reach them; and, if they should be discharged into the duodenum, there would be a cessation of the disease for a time.

Of some Diseases of the Spleen.

The spleen is much less subject to inflammation than many other of the abdominal viscera. I do not recollect a strongly-marked instance of it in my practice; and I have never met with an abscess in the spleen in all the dead bodies which I have examined. The peritoneum is not uncommonly inflamed in that quarter, and the coat of the spleen is more or less involved in the inflammation. I am not aware that inflammation of the spleen would require a different treatment from that of other viscera.

I have met with several examples of enlargement of the spleen. The enlargement has been very different in different patients. In some the spleen has not been more than twice its natural size, and in others it has been so large as to occupy nearly all the left side of the abdomen, extending from the diaphragm to the pelvis. When the enlargement is so considerable that the lower end of the spleen can be felt under the margin of the ribs upon the left side, there can be no doubt with respect to the disease. The spleen, when enlarged, is always felt to be harder than in a natural state, but pressure upon it with the hand seldom produces pain. An enlargement of the spleen is sometimes followed by ascites; but there will frequently be no dropsy of the abdomen, even where the spleen has been for a long time much enlarged. Where enlargement of the spleen has been connected with ague, it more frequently subsides than in any other case; where the enlarge-

ment has taken place independently of this cause, it hardly ever subsides of itself, or is materially diminished by medicine. According to my experience, mercury, administered both externally and internally, produces very seldom any good effect: I have seen, I think, more advantage from a seton inserted under the skin which covers the spleen. In some cases it has appeared to be diminished in size by this remedy, and to be rendered softer; but I do not recollect a single instance, except after ague, in which it has been reduced to nearly its natural size. Temperate living, abstaining from violent exercise, and keeping the bowels open, must be to a certain degree useful in retarding the progress of the disease.

I have not met with any case of hydatids being formed in the spleen, but such a disease now and then occurs. A patient may live very long with this complaint; but it can receive no cure, nor even amendment, from medicine.

Of some Affections of the Kidneys.

The kidneys are more liable to disease than most other glands of the body, and are more frequently diseased in men than in women. This may arise from greater intemperance in the former than in the latter sex, and likewise from the more violent bodily exertions which men are often called upon to make. I have known a few instances in which the two kidneys entirely lost the action of separating urine; and this has been chiefly in persons advanced in life. The patients soon became very comatose, and died in the course of two or three days. No medicine was of the least advantage; and every case, as far as I recollect, terminated fatally. There is a great difference, in the hazard of a patient's situation, whether the kidneys separate a little urine or none at all. In the first case they generally recover, and in the second very rarely. It is curious that life should terminate so soon when the functions of the kidneys have become totally suspended. A person who receives no nourishment whatever into the stomach, or by any other means, will live much longer.

Of Abscesses in the Kidneys.—When inflammation of the kidney has not been removed by the usual means, an abscess takes place in it. The pus which is formed is sometimes of a common kind, but is often of a strumous nature. It comes away along with the urine, in greater or less quantity; and this circumstance, together with the history of the case, ascertains in the most satisfactory manner the nature of the disease. The kidney in such cases is sometimes nearly of its natural size;

but is often much enlarged ; and this circumstance can be ascertained by an examination in the living body. Patients will continue to live with this complaint for many months, and even for several years. The formation of matter will sometimes be suspended for several months, and patients will recover in a considerable degree their general health. The disease will return, either from imprudence in diet or exercise, or without any known cause, and the patient will become as ill as ever. It very rarely happens that a patient permanently recovers from this disease, and I do not at present recollect an instance of it. Medicines, as far as my experience has reached, do not produce any great or permanent good effect. A seton inserted in the loins, or in the flank of that side where the diseased kidney is situated, is sometimes of considerable use. The *uva ursi*, and the *tinctura benzöes composita*, have sometimes been serviceable as internal medicines. The same observations may extend to cooling and mucilaginous remedies. Great quiet of body and uniform temperate living are useful in mitigating symptoms, and in retarding the progress of the disease. A patient labouring under this disease should live almost entirely upon vegetable food, and should abstain from wine and other fermented liquors.

Of Hydatids in the Kidneys.—This is a very rare disease, but I have known two or three instances of it. Its existence cannot be ascertained in the living body, unless an hydatid should occasionally be discharged along with the urine through the urethra. A patient may live very long, perhaps a good many years, with this disease, but it cannot receive any advantage from medicine.

Of Calculi in the Kidneys.—One of the most common diseases of the kidneys is the formation of calculous matter in them. This may either be in the form of sand, producing in the kidneys temporary irritation ; or in the form of a calculus, which may either produce temporary irritation, or a permanent and fatal disease. When the calculus is small and of a favourable shape, it may pass by one of the ureters into the bladder, and be altogether discharged from the body by the urethra. When the bulk of the calculus is considerable, and more especially if it be of an arborescent form, it cannot pass into the bladder, but must remain in the kidney, or in the pelvis of the ureter very near the kidney, producing there more or less of irritation, frequently some degree of inflammation, and not unfrequently an abscess. The existence of a calculus in the kidneys may be guessed at, with high probability, from the symptoms ; but it can only be perfectly ascertained when sand, or small

fragments of calculous matter, are occasionally discharged through the urethra. In the treatment of this formidable complaint, symptoms of inflammation, when present, should always be promptly removed by general and topical bleeding, by cooling and mucilaginous medicines, and by mild purgatives. When the inflammation is removed, the proper medicines should be determined by the nature of the calculus, where this can be ascertained. If the calculus be of the common kind, (consisting chiefly of lithic acid,) magnesia and alkaline medicines should be given, and be continued for a great length of time. If the calculus should consist of the triple phosphate, moderate doses of some of the mineral acids, properly diluted, should be given; and of these the muriatic acid is perhaps the best. I do not recollect any instance in which patients have by these medicines been permanently cured: but I have not unfrequently known the symptoms very much mitigated by them, and even for a time suspended.

Patients labouring under this complaint should live with great temperance, but should adopt chiefly a light animal diet, because if acid be formed in the *primæ viæ* in considerable quantity from vegetable food, the symptoms of the complaint will probably be aggravated.

Of Hemorrhage from the Kidneys.—I have known a few cases in which blood has been discharged from the kidney, and has passed out of the body along with the urine. In most of these cases the quantity of blood has been large, amounting often to nearly a pint at a time, so that the mixture of urine with the blood hardly appeared to dilute it. The recurrence of the bleeding is commonly very frequent, and the disease will often continue, with intermissions, for several weeks. The loss of blood must arise from one or more considerable vessels being ruptured in one or both kidneys; but I believe that generally one kidney only is affected. The blood-vessels of the kidney may be so distended with blood, that one or more of them may burst: or the sharp edge of a calculus may cut through one or more of them, and in this way occasion the hemorrhage. Whether the hemorrhage has been produced in the one way or the other, can generally be determined by an accurate attention to the history of the case.

General and topical bleedings, but more especially the latter, are sometimes of great use in mitigating the disease. Cold applications to the loins and belly are also very serviceable. As internal medicines, nitre, the diluted sulphuric acid, and the tincture of muriated iron, have often produced great benefit.

The last medicine has, I think, upon the whole, been the most useful.

The patient should be kept perfectly quiet, the chamber cool, and the diet for a time should consist entirely of vegetable substances. I do not recollect any instance in which the patient has not recovered from this complaint, when it has not been connected with an abscess, or some other formidable disease of the kidney.

Of Diabetes.—I have, in the course of my medical life, seen a good many instances of this formidable disease. Of late years a considerable proportion of such cases have got well under my care, or have had the symptoms very much mitigated. The most successful plan of treatment has been to give considerable doses of opium, combined with rhubarb or some other bitter: fifty drops of laudanum, for instance, may be given three or four times a-day, mixed with some infusion of rhubarb, or infusion of calumba. The rhubarb may also be given separately, in the form of pills. Under this treatment the disease will often gradually subside, and at length cease altogether. It is, however, very apt to recur; and therefore this plan of treatment, in more moderate doses, should be continued for some months after the patient is apparently well. Bleeding from the system generally, and topical bleeding from the loins, are often useful; for the blood-vessels of the kidneys in this disease are generally more or less distended with blood. The diet should be temperate, and should consist chiefly of animal food; and the best kind of drink is, upon the whole, Bristol water.

Of a loose Tumour in the Region of the Kidney.—In four or five instances I have felt a loose tumour in the situation of one of the kidneys, which could be easily moved up and down with a slight pressure from the hand. The tumour is of considerable firmness, and has a good deal the shape and size of the kidney. It is attended with very little uneasiness to the patient, and the general health is very little, if at all, affected by it. When felt in women, it has been mistaken for an enlarged ovary; but it has neither the shape of an enlarged ovary, nor is it in the situation in which an enlarged ovary is commonly found. I have not had an opportunity of examining this disease in the dead body; I am therefore not certain about its nature, but I am rather disposed to think that it is a kidney more loosely attached than usual to the subjacent and surrounding parts.

Of some diseased Affections of the Urinary Bladder.

It is not unusual for the urinary bladder to become for a certain time paralytic, and to lose its power of expelling the urine. This is more apt to occur in young women than in any other persons, and for the following reason:—The complaint is generally produced by the calls to evacuate the urine being resisted, so that the muscular coat of the bladder becomes very much stretched in consequence of the accumulation of the urine. By the stretching of the muscular coat, its power of acting as a muscle is for a considerable time lost, and is only gradually recovered. Young women, from being long in a carriage or long in company, and from their natural modesty, often resist the desire to evacuate the urine for such a length of time as to induce a paralytic state of the muscular coat of the bladder. Older women manage this function more wisely; and men are not much exposed to the causes which induce them to resist the desire of evacuating the urine. When this disease has taken place, and is not accompanied with any morbid change of structure in the bladder, the bladder gradually recovers its power by the water being regularly drawn off twice or thrice in twenty-four hours, for some weeks. Women may soon be taught to draw off the water themselves, so that they may avoid the very distressing assistance of a surgeon, as well as have an opportunity of relieving themselves whenever there is the least painful distention of the bladder. Internal medicine is of no use in this complaint; but the diet should be temperate, and drink should be taken sparingly.

The bladder will sometimes have only its sphincter muscle paralytic, while the muscular coat of the bladder shall retain its natural power. This complaint prevents the water from being properly retained; and, when there is a certain accumulation of urine in the bladder, it passes off involuntarily. This species of complaint is more common in persons advanced in life than in young persons, and more common in men than in women. The sphincter muscles generally throughout the body become more weak at an advanced period of life; and the bladder of men is more exposed through life to the causes which impair its powers than that of women. When this disease has taken place, it is seldom entirely cured. It is occasionally benefited by small blisters being applied to the perineum, or near the neck of the bladder. Tonic medicines of different kinds, and proper doses of the *tinctura lyttæ*, are sometimes attended with advantage.

Of a diseased Secretion from the Bladder.—The inner membrane of the bladder, more especially near its neck, has the power of secreting mucus, and is always secreting it in a small quantity, in order to protect the internal surface of the bladder against the stimulus of the urine. This secretion is sometimes very much increased in persons at a middle or advanced age, and is a good deal altered in its properties. Instead of being in a great degree transparent and void of colour, it becomes opaque and yellow, so as very much to resemble pus. It becomes what is now generally called purulent mucus, and will often be nearly equal in quantity to the urine itself. When the urine has been evacuated, and has been allowed to rest in a vessel for a little time, the purulent mucus subsides from the urine, and often adheres with considerable tenacity to the sides of the vessel. This mucus is often formed without there being any morbid structure in the bladder, or any substance contained in the bladder which produces irritation; but it almost constantly attends, more or less, the presence of a calculus there.

When this complaint is independent of a calculus, it commonly receives but little benefit from medicine. The balsam of copaiba, the uva ursi, and soda, sometimes appear to be useful, but they very seldom produce any considerable or permanent good. When the existence of a calculus in the bladder is the cause of the disease, the removal of the calculus will effectually cure it.

Of a Calculus in the Bladder.—When a calculus is in the bladder, the disease can in general be ascertained by an accurate attention to the symptoms; but it can always, or almost always, be ascertained in a satisfactory manner, by a sound or catheter being introduced into the bladder by an experienced surgeon. I have known a good many instances in which this disease has been alleviated by medicines, but none in which it has been cured. Mucilaginous substances, fomentations, opiates, magnesia, and alkaline remedies, are sometimes of considerable use in lessening the symptoms. Where the calculus has been ascertained, by portions of it, or by gravel, which may have been occasionally discharged with the urine, to consist of the triple phosphate, much advantage has sometimes been derived from taking moderate doses of the muriatic acid properly diluted.

Of a Communication by Ulcer between the Bladder and the Rectum.—I have known two cases of this kind; one of which was in a man, and the other in a woman. They both lived between two and three years, but they died from the consequences of the disease. Both sometimes suffered considerable pain in the

very lower part of the abdomen, but they were both often quite free from pain for many hours together. The pulse was sometimes of a natural frequency, and sometimes was accelerated. It hardly ever happened that urine escaped from the bladder into the rectum, but very often air escaped from the rectum through the urethra; and frequently more or less of faeces was discharged by the same channel. Whenever faeculent matter was discharged by the urethra, great pain was felt about the neck of the bladder. It is very obvious that medicine could be of no substantial use in those cases. Opiates, fomentations, and mild purgatives, sometimes produced an alleviation of the symptoms; but the constitution became at length very much exhausted, and the scene was then soon closed.

Of some diseased Affections of the Womb.

One of the most common diseases of the womb is prolapsus uteri. It is in very different degrees in different individuals. In some the womb is only a little lower in its situation than it ought to be, but the mouth of the womb is still considerably within the vagina. In others, the neck of the uterus shall be at the external opening of the vagina; and in a few, a considerable portion of the womb shall be without the body.

According to my experience, this disease, when in a considerable degree, is often very imperfectly relieved. When the degree of it is slight, and the vagina not very relaxed, the complaint may sometimes be removed by a horizontal posture being continued throughout the greater part of the day for several months, by the judicious use of tonic medicines, and by astringent fluids being injected into the vagina twice a-day. In a moderate degree of the prolapsus, pregnancy taking place has often proved the means of curing the disease.

When the prolapsus is in a great degree, both internal and external remedies have generally been of little use. The inconveniences, however, of the disease, may in a great measure be prevented by a pessary being constantly worn in the vagina. When the pessary is well adapted to the circumstances, it does not produce pain, and in time the patient is hardly sensible of its presence. I need not say that the pessary should be removed for a few minutes every two or three days, in order that it may be cleaned, and not produce irritation.

Of Polypus of the Womb.—This disease, although by no means so common as the former, is not very rare, and I have not unfrequently been consulted about it. If the symptoms be not inquired into with some attention, it may be confounded

with the malignant ulcer, or what is usually called cancer of the womb; but a minute inquiry into the symptoms will enable the practitioner, in most instances, to distinguish between the two diseases. When an examination has been made per vaginam, no doubt can remain; and therefore, before an opinion is decidedly given, an examination should always be made.

In this disease no permanent advantage is gained by medicine. The strength of the constitution may be a little kept up by tonic and astringent medicines, and the profuse discharges of mucus and blood may be moderated by the application of cold and astringent fluids; but the disease can only be removed by an operation, which consists in tying the neck of the polypus by a ligature. This can be done safely, and with great dexterity by many practitioners in midwifery. In a few days after the operation, the polypus drops off, and the patient gradually recovers her usual health. In many instances, the polypus does not return; but a new polypus is occasionally formed, which in due time may be removed by a similar operation.

Of Cancer of the Womb.—This disease is not uncommon, more especially at the middle and more advanced periods of life, and I have frequently been consulted respecting it. I have never known any medicine produce the least real amendment of the disease. Opium and other sedatives will not unfrequently relieve the greater attacks of pain; and in that way will prevent the constitution from being so soon worn down by the disease. It is to be observed, however, that different women suffer naturally very different degrees of pain in this fatal disease, and that its progress is much more slow in one woman than in another. The diet should always be very temperate, consisting chiefly of vegetable substances, and the patient should abstain from wine and other fermented liquors.

Of an Enlargement of the Womb.—This disease is not uncommon, although by no means so frequent as cancer of the womb. It is more apt to occur at or near the middle period of life than at any other, and may be distinguished by a moderate attention to the circumstances of the case. There are considerable mucous discharges by the vagina, as in some other diseases of the womb, and the monthly evacuations are profuse. When the disease has made some progress, a tumour of a pyramidal shape, and of considerable hardness may be felt immediately above the pubes. The neck of the uterus is likewise found to be enlarged by an examination per vaginam. These circumstances sufficiently characterise the disease. It generally continues for many years, and the general health is often not much affected by it. In the course of my experience, I have known

three cases of this disease cured by medicine. Five or six grains of the pilula hydrargyri were directed to be given every night for many weeks; from half a pint to a pint of decoction of sarsaparilla was ordered to be drank daily; and a large mercurial piaster was applied over the tumour and the whole lower part of the abdomen. The disease in these instances gradually subsided, and at length disappeared altogether. One of these patients, who was about thirty-five years of age, afterwards became pregnant, and bore a very healthy child.

Of some diseased Affections of the Ovarium.

The most common disease of the ovary is that of its being dropsical. It may take place at almost any period of life. It is not unusual in young women, and often occurs about the middle age. This disease may, in general, be readily distinguished from ascites, by an examination of the swelling, which is almost constantly more or less uneven upon its surface, and often more or less hard in different parts of it. Sometimes, however, in dropsy of the ovary, when the disease is of considerable standing, the swelling is uniform, and a sense of fluctuation is felt upon striking the tumour with the hand, almost as distinctly as in ascites. Under such circumstances, the two diseases will be distinguished from each other by inquiring accurately into the history of the case.

I do not recollect any instance in which dropsy of the ovary has been materially diminished by medicine. I have long, therefore, given up the trial of active remedies in this disease, which I have found to be ineffectual, and sometimes injurious to the constitution. I have contented myself with keeping the bowels regular, and with directing such diuretic medicines as would not impair the general health. I have not found mercury, even when continued for several months together, and having its full influence upon the constitution, produce a cure, or any material change in this disease. The disease will sometimes remain stationary for a good many years, and the general health will be very little impaired by it. In one instance, after it had existed for nearly thirty years, the disease disappeared spontaneously, and the lady, who is still alive, remained afterwards in good health. In three cases, where the women were young, and the dropsy confined to one large cyst in the ovary, I have known them to be effectually relieved by tapping, and the disease not to return for several years. In one of these the dropsy did not return for ten years. Where the patient is young, and dropsy of the ovary under favourable

circumstances, it is always worth while to make a trial of this remedy. When the dropsy of the ovarium is composed of several cysts, the disease may be partially relieved by tapping; but it almost constantly returns, and after a certain time very rapidly, so that there is only a short interval between the operations. Still however, some relief is afforded by each operation; and patients will be ready to undergo the operation for this relief every two or three months for several years.

A firm swelling, about the size of the fist or a large orange, is sometimes to be felt in the situation of the ovarium, either upon the right or the left side of the abdomen. It will sometimes remain stationary, will sometimes go on enlarging to a much greater size, and is not, as far as I have seen, suppressed by any remedy. This solid structure of the ovarium is found not uncommonly blended with the dropsical cysts which have been lately mentioned.

Of Dr Baillie's Experience in Fevers.

While I was a physician of St George's Hospital, which was during a period of thirteen years, I saw a good many cases of typhous fever. There were generally three or four cases of such fevers under my care at a time. Since I have ceased being a physician to that hospital, and more especially since my patients have been chiefly in the upper ranks of society, I have not seen more than three or four of such fevers in a twelve-month. With respect to the contagious nature of these fevers, I am convinced that it is in general not considerable. I do not recollect an instance in which a patient in that hospital communicated the infection to a patient lying in the next bed. When patients are crowded together, and the apartments are ill ventilated, I entertain no doubt of this species of fever being capable of being communicated readily from one individual to another.

These fevers are sometimes without any symptoms which denote a local affection of a vital organ, but very frequently there are symptoms which indicate an inflammatory action of some of the viscera in the chest or belly, or of the brain.

In these fevers, I have met with no remedies which possess any specific powers of cure, or which are capable of shortening, in any material degree, their duration. Before they are fully formed, they are sometimes cut short by an emetic, by active purgatives, by profuse perspiration, or by cold affusion; but, when they are quite established, I do not recollect that I have seen any instance in which they have been shortened by

these means. The most successful method of treating these fevers, as far as I have seen, is to remove or mitigate the symptoms as they arise. The symptoms denoting an affection of the brain should be relieved as speedily as possible by cupping, leeches, and the application of cold to the head. Cloths dipped in iced water, and kept almost constantly applied to the shaved scalp, have appeared to me more effectual in removing delirium than any other remedy.

When there is pain in any part of the chest, or difficulty of breathing, these symptoms should be relieved as soon as possible by cupping or leeches, or blisters, and by saline medicines.

If there be any pain in the abdomen, or any symptoms denoting an affection of the liver, the stomach, and the bowels, these are to be relieved by their appropriate remedies.

If there be too vigorous a circulation over the body, without any apparent local affection, it may be corrected by a very cautious bleeding from the arm, by purging, and by saline medicines. If the actions of the constitution be feeble, they may be strengthened by tonic and stimulating remedies, the best of which I believe to be wine in suitable doses. By this mode of treatment, fevers will often terminate favourably, which otherwise would have been fatal.

During the greater part of the time in which I have practised medicine, physicians in general, and myself among that number, have, I believe, been too sparing in taking away blood in typhous fever. It was hardly ever directed to be taken away from the arm, and not often locally, except by the application of leeches to the head. Of late years many physicians have gone into the opposite extreme, and have taken away blood too profusely. In the course of a few years this remedy, like every other, will find its proper level. During the course of a fever, patients require but little nourishment; and this should in a great measure consist of farinaceous matter. Even when the fever has entirely subsided, animal food should be taken, for some time, very cautiously and sparingly. I have known some instances of the most serious relapses of fever, from patients having taken animal food too soon and in too large quantity; and I am disposed to think that the greater number of relapses arise from this cause.

Of Intermittent Fevers.—I have always practised in London, and have therefore not had many cases of intermittent fever under my care. While I was a physician of St George's Hospital, I perhaps saw five or six cases of it in a year; and this chiefly occurred among the poor Irish who lived or lodged in

St Giles's. In some of these cases, the origin of the disease could be clearly traced to marshy effluvia; but in others this cause could not be traced, as the patients reported that they had lived in St Giles's for several years, and had always been employed as labourers in London. They may, however, have been exposed to marshy effluvia in the neighbourhood of London, without knowing or recollecting it.

I have known a good many cases in which bark alone would not cure an ague. In all of these cases, as far as I now recollect, when a grain of calomel was given every night for eight or ten nights, bark cured the ague in the course of a few days. This practice I learnt from my friend Dr David Pitcairn. The powder of bark I consider as a more efficacious remedy for agues than the extract of bark.

According to my experience, arsenic cures agues in general sooner than bark, and produces no bad effect, if it be given in proper doses, and be not continued too long. When the ague has been stopped for three or four days, the arsenic should be given up, and half a drachm of bark, in powder, should be given three or four times a-day, for perhaps a week.

I have known some cases of ague cured by the powder of calamus aromaticus; and I have understood that it is not an uncommon remedy among the lower orders of people in Sussex.

INTELLIGENCE.

NUMBER OF MEDICAL GRADUATES IN THE U. S. IN 1826.

Bowdoin College, Maine,	•	•	•	•	21
Berkshire Medical Institution,	•	•	•	•	16
Harvard University,	•	•	•	•	24
Yale College,	•	•	•	•	27
University of Vermont,	•	•	•	•	18
University of New-York,	•	•	•	•	34
University of Pennsylvania,	•	•	•	•	114
Jefferson College,	•	•	•	•	20
University of Maryland,	•	•	•	•	75
Columbian College, (D.C.)	•	•	•	•	6
Charleston Medical College,	•	•	•	•	26
Transylvania University,	•	•	•	•	64
Medical College of Ohio,	•	•	•	•	17

MEDICAL PRIZE QUESTIONS.

AT the annual meeting of the *Boylston Medical Committee of Harvard University*, holden in Boston, Aug. 2d, 1826, it was

Voted, That the Boylston Medal, or fifty dollars in money, be awarded to the author of a dissertation on the following subject, to wit:—‘On the diseases resembling Syphilis, and the best methods of removing such diseases.’

The author was D. Humphreys Storer, M.D. No. 442, Washington-street, Boston.

Voted, The same to the author of the best dissertation on the question, ‘Whether the veins perform the function of absorption.’

The author was found to be Samuel A. Cartwright, M.D. of Natchez, Mississippi.

The public is reminded that the subjects for the prize dissertations for 1827, are the following, viz. :—

1. *On the History of the Autumnal Fevers of New-England.**
2. *On Inflammation of the Periosteum, acute and chronic.*

The prize questions for the year 1828 are these.

1. *What are the circumstances in which the drinking of cold water in hot weather proves injurious; what are the diseases which arise from this cause; and what is the best mode of treating those diseases?*

2. *On the disease called an irritable state of the urinary bladder; its cause and treatment.*

Each dissertation is to be accompanied with a sealed letter, on the outside of which shall be written some device or motto, and on the inside, the name and place of residence of the author. The same device or motto must be written on the dissertation, to which the letter is annexed. No dissertation will be acted upon which has the signature of the author attached to it.

The dissertations must be transmitted, *post paid*, to Thomas Welsh, M.D. of Boston; those for 1827 on or before the *first day of April*, 1827; and those for 1828 on or before the *1st of April*, of that year.

All unsuccessful dissertations are deposited with the Secretary, from whom their authors may obtain them, if applied for within one year after they were received.

At the meeting above mentioned, the following votes were passed :—

* It is expected that writers on this subject, will confine themselves to the *history of these fevers.*

Voted, That the Committee do not consider themselves as approving any doctrines contained in any of the Dissertations, to which the premium may be adjudged.

Voted, That in case of the publication of a successful dissertation, the author be considered as bound to print the above vote in connexion therewith.

J. GORHAM, *Secretary.*

DR DAVIS' ELEMENTS OF OPERATIVE MIDWIFERY, AND CATALOGUE OF INSTRUMENTS DESCRIBED IN THAT WORK.

Dr Channing has recently received the new work of Dr Davis on Operative Midwifery, which has been very favourably noticed in the foreign journals, but has not had time to finish an analysis of it. Dr Davis is known to the profession abroad for his *Craniotomy Forceps*, so called. This was regarded as so valuable an addition to the instruments in use in midwifery, that the inventor received the annual gold medal of a society for the encouragement of the useful arts. Since receiving the work, a complete set of the instruments described in it, has been received. They were put up by order, and under the direction of Dr Davis. The Craniotomy Forceps, both single and double curved, had been received before. The following is the accompanying catalogue:—

Dr Davis' Forceps with a joint, and a short blade, to fit both sides.

- Do. without a joint.
- Do. narrow blades, to fit do.
- 2 Do. Oblique Forceps, right and left.
- 2 Do. Long Forceps with a short blade.
- 1 Outside Crotchet.
- 1 Inside Do.
- 1 Body Do.
- 2 Osteotomists, different shapes.
- 1 Decapitating Hook.
- 1 Embryotomy Knife.
- 1 Vectis with small teeth.
- 2 Instruments for prolapsus of umbilical cord.

MEDICAL LECTURES IN HARVARD UNIVERSITY.

THE Medical Lectures of Harvard University will begin at the Massachusetts Medical College in Boston, on the third Wednesday in November, at 9 o'clock, A. M.

Anatomy and Surgery, - - - - - Dr Warren.

Chemistry, - - - - -	Dr Gorham.
Materia Medica, - - - - -	Dr Bigelow.
Midwifery and Medical Jurisprudence, - - -	Dr Channing.
Theory and Practice of Physic, - - -	Dr Jackson.

PUBLIC LECTURES.

DR WEBSTER, Resident Lecturer on Chemistry at the University of Cambridge, proposes to deliver a course of Lectures on Chemistry in Boston, to begin early in October.

DRS WARE and BRADFORD propose to deliver a course of Lectures upon the Philosophy of Natural History, to begin early in December.

LIST OF NEW PUBLICATIONS.

AMERICAN WORKS.

A Letter to the Hon. Isaac Parker, Chief Justice of the Supreme Court of the State of Massachusetts, containing remarks on the Dislocation of the Hip-joint, occasioned by the Publication of a Trial which took place at Machias, in the State of Maine, June, 1824. By John C. Warren, M.D. Professor of Anatomy, &c. With an Appendix, &c. Cambridge. 8vo. pp. 142. 1826.

The Medical Formulary; being a Collection of Prescriptions, derived from the Writings and Practice of many of the most eminent Physicians in America and England. To which is added an Appendix, &c. By Benjamin Ellis, M.D. Philadelphia. 8vo. pp. 108.

The Importance of the Science of Anatomy and Physiology, as a Branch of General Education; being an Introduction to a Course of Lectures to the Upper Classes in Brown University. By Usher Parsons, M.D. Cambridge. 8vo. pp. 32.

Memoir of the Topography, Weather and Diseases of the Bahama Islands. By P. S. Townsend, M.D.

AMERICAN EDITIONS.

Brande's Manual of Chemistry; to which are added Notes and Emendations, by William James Macneven, M.D. Second American Edition. N. York.

A Treatise on Diet, &c. By John Ayrton Paris, M.D. Philadelphia.

Observations on those Diseases of Females, which are attended with Discharges. By Charles M. Clarke. 2d American Edition. Boston. 8vo.

IN THE PRESS.

Directions for the Treatment of Persons who have taken Poison, and those in a State of Apparent Death. Translated from the French of the Third Edition, 1825. By J. Greely Stevenson, M.D. Boston.

FOREIGN WORKS.

A Treatise on Diet; with a view to establish, on Practical Grounds, a System of Rules for the Prevention and Cure of the Diseases incident to a disordered State of the Digestive Functions. By J. A. Paris, M.D. &c. 8vo. pp. 307. London. 1826.

An Essay on Head-aches, and on their Cure. By Walter Vaughan, M.D. 8vo. pp. 252. London. 1826.

Experimental Researches on the Influence exercised by Atmospheric Pressure upon the Progression of the Blood in the Veins, upon that Function called Absorption, and upon the Prevention and Cure of the Symptoms caused by the Bites of rabid or venomous Animals. With an Appendix containing the original Reports to the Institute. By David Barry, M.D. pp. 175. London. 1826.

Observations on the artificial Mineral Waters of Dr Struve, of Dresden, prepared at Brighton; with Cases. By William King, M.D. pp. 55. 1826.

An Essay on Bathing; with Remarks on the Efficacy and Employment of the Mineral Water at Ashby-de-la-Zouche and Moira. By W. R. Cubitt, M.D. pp. 90.

An Inquiry concerning that disturbed State of the Vital Functions usually denominated Constitutional Irritation. By Benjamin Travers. pp. 566. 1826.

Practical Observations in Surgery, more particularly as regards the Naval and Military Service. 2d Edition. By Alexander C. Hutchinson. pp. 446. 1826.

A correct Report of the Speeches delivered by Mr Lawrence, as Chairman, at two Meetings of Members of the Royal College of Surgeons. With an Appendix, containing the Resolutions agreed to at the first Meeting. pp. 135. London. 1826.

The Surgeon-Dentist's Anatomical and Physiological Manual. By G. Waite, Member of the Royal College of Surgeons. 8vo. pp. 220. London. 1826.

The Medical Evidence relative to the Duration of Pregnancy, as given in the Gardner Peerage Cause before the House of Lords. By Robert Lyall, M.D. 1826.

An Essay on Cupping, &c. By Charles Kennedy, Surgeon. 8vo. with a plate. pp. 68. 1826.

Elements of Operative Midwifery; containing a Description of certain new and improved Powers for assisting difficult and dangerous Labours; illustrated by Plates; with cautionary Strictures on the improper Use of Instruments. By D. D. Davis, M.D.

Transactions of the Medical and Physical Society of Calcutta, Vol. I. 8vo. pp. 340. Calcutta, May, 1825.

A Practical Dissertation on Costiveness. By Richard Reece, M.D. 8vo. pp. 351. London. 1826.

An Account of the Morbid Appearances exhibited on Dissection, in various Disorders of the Brain; with Pathological Observations, &c. By Thomas Mills, M.D. Dublin. 8vo. pp. 238. 1826.

A Case of Melanosis, with general Observations on the Pathology of that Disease. By Thomas Fawdington. Coloured Plates. London. 8vo. pp. 49. 1826. 7s. 6d.

A Catechism of Anatomy. 12mo. pp. 72. Whittaker. 1826.

An Introduction to the Study of the Laws of Chemical Combination and the Atomic Theory. By Edward Turner, M.D. Edinburgh. 12mo. pp. 144. 1826.

A Treatise on the Effects and Properties of Cold; with a Sketch, Historical and Medical, of the Russian Campaign. By Moricheau Beauprè, M.D. Translated by John Clendinning, M.D. Edinburgh. 8vo. pp. 375. 1826.

Farther Remarks on Hernia. By E. Geoghegan. Dublin. pp. 23. 1826.

Du Magnetisme Animal en France. Par Alexander Bertrand. 8vo. pp. 539. Paris and London. 1826.

Pyrotologie Physiologique, ou Traité des Fievres considerées dans l'Esprit de la Nouvelle Doctrine Médicale. Par F. G. Boisseau. 3d Edition. 8vo. pp. 722. Paris and London. 1826.

Exposé des divers Procédés employés jusqu' à ce jour pour guérir de la Pierre, sans avoir Recours à l'Opération de la Saille. Par J. Leroy. 8vo. pp. 232. Paris. 1825.

Traité Clinique d'Encéphalite. Par M. J. Bouillaud. 8vo. pp. 350. Paris. 1825.

Traité des Maladies du Cœur et des gros Vaisseaux. Par R. J. Bertin, &c. Rédige par J. Bouillaud, &c. 6 Planchet. 8vo. pp. 464. London and Paris.

INDEX.

A.

	PAGE
Abdomen, wound of	271
Abortion, cases of treated by Ergot	18
Allan, Mr, case of perforation of the soft palate	22
Anatomical preparations, new method of securing	102
Anatomy, morbid, of Bichat	277
Ankylosis, universal, Maraschini's case of	15
Aneurism, axillary, cured by tying the subclavian artery	67
Aneurism, case of, cured by tying the artery on the farther side from the heart	83
Animal life, Dr North's desultory outlines of	1, 146
Animal magnetism	384
Antimony, tartarized, its impurity,	301
Aorta, pulsation of in the epigastrium, Dr Baillie's observations on	62
Artery, subclavian, ligature of, by Mr Key	67
Ascites, singular case of	16

B.

Baillie, Matthew M.D. the works of	50
Baillie, Dr, on pulsation of the aorta in the epigastrium	62
on green jaundice	64
Baillie, Matthew M.D. Extracts from Lectures and Observations on Medicine	215, 324, 415
Barry, Dr, treatment of poisoned wounds	258
Belladonna, use of in Iritis	19
Bichat, Xav. morbid anatomy	277
Bills of mortality, remarks on	225
Bills of mortality	220, 21, 22
Births, Twin	387
Bishop, Thomas, M.D. on the obliteration of a strangulated portion of intestine	108
Bladder, case of stone in	259
Blisters, Dr Channing on	235
Vaccination	243
Blood, loss of, Marshall Hall on the effects produced by	84
Blood, oil in the serum of	14
Boisseau, F. G. edition of Bichat's Morbid Anatomy	277
Bone and teeth contained in a tumour in the anterior median diastinum	69
Bostock, John M.D. on the saliva during salivation	76

Boylston Medical Society	- - - - -	219
Medical Prize Dissertations	- - - - -	433
Brain, Dr Jeffries' case of organic disease of	- - - - -	351
Breschet, Gilbert M.D. his new variety of extra-uterine pregnancy	- - - - -	72
Bryce, Mr, his stomach syphon	- - - - -	102
Bennett, William M.D. case of epilepsy	- - - - -	82
Burns, Cases of the removal of their cicatrices	- - - - -	79

C.

Carter, Dr, Case of obstinate vomiting cured by extract of marigold	- - - - -	390
Catarrhal complaint of children peculiar	- - - - -	150
Catarrhus Epidemicus or Influenza	- - - - -	135
Channing, Walter jun. M.D. on bills of mortality	- - - - -	225
on blisters	- - - - -	235
on spina bifida	- - - - -	357
cases of preternatural labour	- - - - -	362
of erysipelatous inflammation	- - - - -	367
Chateaunef memoir on the duration of human life in France	- - - - -	380
Chemical Philosophy, Dana's epitome of	- - - - -	190
Chemistry, Dr Webster's manual of	- - - - -	399
Chervin, Dr, notice of	- - - - -	107
Chevalier, Thomas William, Case of pale dry gangrene of the foot	- - - - -	70
on the ligaments of the human ossicula auditus	- - - - -	76
Children, Dr Dewees' work on the physical and medical treatment of	- - - - -	173
Clinical Remarks, by A. L. Peirson, M.D.	- - - - -	130
Clitoris, extirpation of cures idiotism	- - - - -	24
Cooper, Sir Astley, Surgical Lectures	- - - - -	193, 310
Coroner's Inquest, remarks concerning	- - - - -	103
Croton tiglum, Mr Pope's new preparation of	- - - - -	78
Croton oil, Mr Tegart on the use of	- - - - -	20
soap of	- - - - -	244
use in Taenia	- - - - -	257
Curtis, Dr Elbert, Case of a foetus found in the uterus of another child	- - - - -	31

D.

Dana, James Freeman, Epitome of chemical philosophy	- - - - -	190
Davis, Dr, work on operative midwifery, with a catalogue of Instruments	- - - - -	434
Deaf and Dumb, History of a child cured	- - - - -	274
Delagarde, Philip C. Case of simultaneous occurrence of small-pox and measles	- - - - -	80

Dewees, William P., M.D. on the physical and medical treatment of children	173, 282
Diagnosis of Diseases, on the application of the pulse in	337
Difficult and impracticable labour	113
Duration of human life in France	380

E.

Edinburgh medical graduates, their number	102
Elliotson, John, M.D. Case of Rupture of the Stomach	71
Case of Fallopian tube pregnancy	75
on Subcarbonate of Iron	83
Epilepsy, accompanied with very slow pulse	82
Epilepsy, case of	355
Ergot, its use in cases of lingering labour	17
Erysipelas, cases of	367

F.

Fœtus in the uterus of another child, case of	31
Fungus hæmatodes of the Brain, Mr Hunter's case of	78

G.

Gangrene, dry, of the foot, Mr Chevalier's case of	70
Gintrae, M. Parallel between worm fever and cerebral fever	392
Gœbel, Dr, Case of Hydrocephalus	379
Gœlis, Dr, Practice in diseases of children	382
Gordon, James A., Case of tumour in the anterior mediastinum containing bone and teeth	69
Green Jaundice, Dr Baillie on	64
Gregory, George M.D. on Hydrophobia	83

H.

Hall, Marshall M.D. and John Higginbottom's cases of destructive inflammation of the eye, &c.	81
Hall, Marshall M.D. on the effects of loss of blood	85
Harris, Thomas M.D. Non-mercurial practice in Syphilis	156
Hayward, George M.D. Account of the measles in Boston	10
Hemorrhage, hereditary tendency to	252
Hemorrhage in lithotomy	269
Hereditary tendency to hemorrhage	252
Hewitt, M. Account of the effects of the bite of a wild Jack-all	84
Higginbottom, John, and Marshall Hall, M.D. Cases of destructive inflammation of the eye, &c	81
Hospital, Massachusetts General	219
Hotel Dieu, Hospital Reports of	22
Hunter, John, jun. Case of Fungus Hæmatodes of the Brain,	78
Hydrocephalus, extraordinary case of	379
Hydrophobia, Dr Gregory's case of	83

I.

Idiotism cured by extirpation of the clitoris	- - - - -	24
Influenza—Catarrhus Epidemicus	- - - - -	135
Insects, larvæ of in the human stomach	- - - - -	21
Iodine, Manson's researches on the medical power of	- - - - -	33
Iritis, Closure of the pupil in	- - - - -	19
Iron, Subcarbonate of, its use and doses	- - - - -	83
Italian new medical doctrine	- - - - -	141
Italy, Dr Oppenheim's account of the present state of medicine in	- - - - -	160

J.

Johnson, James M.D. of a remarkable disease of the heart	- - - - -	82
Jaundice, Green, Dr Baillie on	- - - - -	64
Jeffries, John M.D. Case of organic disease of the brain	- - - - -	351
James, J. H. Cases of the removal of the cicatrices of burns	- - - - -	79

K.

Key, Charles A. ligature of the subclavian artery	- - - - -	167
---	-----------	-----

L.

Laboune, Case of spina bifida cured by puncture	- - - - -	381
Labour, difficult and impracticable	- - - - -	113
Labour, lingering, cases of treated by ergot	- - - - -	17
Labour, preternatural, cases of	- - - - -	262
Larrey, Baron, on the actual cautery in traumatic erysipelas	- - - - -	392
Larvæ of insects in the human stomach	- - - - -	21
Laudanum, Case of poisoning by	- - - - -	147
Life, human, duration of in France	- - - - -	380
Lithotomy, hemorrhage in	- - - - -	269
Louis on Phthisis	- - - - -	261

M.

Macartney, Dr, new mode of securing anatomical preparations	- - - - -	102
Mackenzie, Mr, on the use of belladonna in Iritis	- - - - -	19
Magnetism, animal	- - - - -	384
Manson, Alexander M.D. Researches on Iodine	- - - - -	33
Manual of Chemistry, by Dr Webster	- - - - -	399
Maraschiu Giov. Batt Grabner, Case of universal ankylosis	- - - - -	15
Marigold, extract of, in obstinate vomiting	- - - - -	390
Massachusetts Medical Society	- - - - -	332
McClellan, Samuel, Dr, on the Pinta or Blue-stain, a disease of Mexico	- - - - -	388
Measles in Boston, Dr Hayward's account of	- - - - -	10
and small-pox, their simultaneous occurrence	- - - - -	80
Medical Graduates, number of in the several medical schools	- - - - -	432
Prize Questions	- - - - -	433
Society	- - - - -	332
Graduates	- - - - -	334, 432
Lectures	- - - - -	334, 434, 5

Medico-Chirurgical Transactions, vol. 13. Part 1	66
Monges, Dr, Case of temporary loss of power over the muscular system	154
Morris, Dr, Case of stone in the bladder	259
Muscular System, case of temporary loss of power over	154

N.

Needles, extraction of four hundred from a patient	25
Nerves, fifth pair, Case of disease of	256
North, Elisha, Dr, Desultory outlines of animal life	1, 146
Milo L. Dr, Case of pseudo-tetanus	234
on the pulse	337

O.

Oil of Croton	20
soap of	244
its use in tænia	257
Oppenheim, Dr, Account of the present state of medicine in Italy	160, 245
Otto, Dr, Case of the extraction of 400 needles from a female on the non-mercurial practice in Syphilis	25
	172

P.

Palate, soft, perforations of	22
Parrish, Joseph M D. observations on a peculiar catarrhal complaint of children	150
Parsons, Usher Dr, Case of epilepsy	355
Parturition, Difficult case of	391
Peirson, A. L. M.D. Clinical Remarks	130
Perforation of the stomach	266
Phthisis, M. Louis on	261
Physical Education	173
Pinta, or blue-stain, a disease of Mexico	388
Pope, John, new preparation of croton tiglium	78
Pregnancy, extra-uterine, Breschet's new variety of fallopian tube, Dr Elliotson's case of	72
	75
Pressure, Atmospheric, of its effects on the human system	371
Prognosis of Diseases, the application of the pulse in	337
Pulse, remarkable slowness of in epilepsy	82
Pulse, Dr North on its application in prognosis and diagnosis	337
Pupil, Closure of in Iritis	19

Q.

Quinine, sulphate of	30
----------------------	----

R.

Roux, M. on staphyloraphia	268
Rupture of the Uterus	397

S.

Secale Cornutum. See ergot.		
Serum of Blood, oil in	- - - - -	14
Slack, David B. on the effects of atmospheric pressure	- - - - -	371
Small-pox and measles, their simultaneous occurrence	- - - - -	80
Spina Bifida, Dr Channing on	- - - - -	357
Cure by puncture	- - - - -	381
Staphyloraphia, M. Roux on	- - - - -	268
Stevenson J. Greely, Italian new medical doctrine	- - - - -	141
Stomach, human, larvæ of insects in	- - - - -	21
perforation of the	- - - - -	266
protrusion of	- - - - -	271
rupture of, Dr Elliotson's case of	- - - - -	71
Stone in the bladder, new method of relieving	- - - - -	259
Subclavian artery, ligature of by Mr Key	- - - - -	67
Sulphate of Quinine	- - - - -	30
Surgery, Lectures on, by Sir Astley Cooper	- - - - -	193, 310, 401
Syphilis, non-mercurial practice in	- - - - -	156, 172
Syphon, stomach, of Mr Bryce	- - - - -	102

T.

Teeth and bone contained in a tumour in the anterior mediastinum	- - - - -	69
Tegart on the croton oil	- - - - -	20
Tetanus Pseudo, Dr North's case of	- - - - -	234
Thomson, Anthony T. M.D. Case of hydrometra and dry gangrene	- - - - -	81
Tænia, treatment of by croton oil	- - - - -	257
Traill, Thomas S. M.D. Account of oil in the serum of human blood	- - - - -	14
Travers, Benjamin, on wounds of the abdomen	- - - - -	271
Tumour, uterine, cases of treated by Ergot	- - - - -	19
Twin births	- - - - -	387
Tyrrel, Frederick S. edition of Sir Astley Cooper's Lectures	- - - - -	193, 310, 401

U.

Uterine tumour, cases of treated by Ergot	- - - - -	19
Uterus, rupture of in early pregnancy	- - - - -	397

V.

Vomiting, obstinate, use of extract of marigold in	- - - - -	390
Vomiting of fat and blood	- - - - -	396

W.

Wardrop, James, edition of Baillie's works, with his life, written by the editor	- - - - -	50
Case of carotid aneurism	- - - - -	183
Ware, John Dr, Case of poisoning by laudanum	- - - - -	147
Webster, John W. M.D. Manual of chemistry	- - - - -	399
Wounds, poisoned, treatment of by cupping glasses	- - - - -	258

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